



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

Mamma.
Z
6037
.P2
H29
1902

HARVARD UNIVERSITY



LIBRARY OF THE MUSEUM OF
COMPARATIVE ZOÖLOGY

GIFT OF

GLOVER M. ALLEN

Deposited in Mammal Department

Glover M. Allen
1915

Ernst Mayr Library
Museum of Comparative Zoology
Harvard University

DEPARTMENT OF THE INTERIOR

BULLETIN

OF THE

UNITED STATES

GEOLOGICAL SURVEY

No. 179

BIBLIOGRAPHY AND CATALOGUE OF THE FOSSIL
VERTEBRATA OF NORTH AMERICA.—HAY

WASHINGTON
GOVERNMENT PRINTING OFFICE
1901

869

UNITED STATES GEOLOGICAL SURVEY

CHARLES D. WALCOTT, DIRECTOR

BIBLIOGRAPHY AND CATALOGUE

OF THE

FOSSIL VERTEBRATA OF NORTH AMERICA

BY

OLIVER PERRY HAY



WASHINGTON
GOVERNMENT PRINTING OFFICE
1902.

CONTENTS.

	Page.
Letter of transmittal.....	7
Preface	9
Bibliography	13
Addendum	251
Tabular key to catalogue.....	252
Catalogue.....	262
Addenda et corrigenda.....	795
Index	797

LETTER OF TRANSMITTAL.

AMERICAN MUSEUM OF NATURAL HISTORY,

New York, May 6, 1901.

SIR: I have the honor to transmit herewith a Bibliography and Catalogue of the Fossil Vertebrata of North America.

I take pleasure in acknowledging the interest which you have shown at all times in the preparation of this work.

I am, with great respect, your obedient servant,

O. P. HAY.

Hon. C. D. WALCOTT,

Director of the U. S. Geological Survey,

Washington, D. C.

P R E F A C E .

The purpose of this bibliography and catalogue is to present a list of all the species of fossil vertebrates which have been described, up to the end of the year 1900, from all that part of the continent of North America lying north of Mexico, and to furnish a guide to the literature relating to all these extinct forms of organized beings. The number of species is so great and the literature describing them is so vast and so widely scattered that even the experts in the science of vertebrate paleontology have great difficulty in making and keeping themselves fully informed as to what has already been done and what is being done. It is hoped that this work will relieve students of much tedious and often unavailing search.

This bulletin may be said to consist of three parts: First, a bibliography which contains the titles of all the books, memoirs, and papers, extended or brief, which the author has been able to consult and which have appeared to him to have a useful bearing on the subject; second, a systematically arranged list of all the species of fossil vertebrates which have been described from the region above indicated; third, an index, alphabetically arranged, of all the systematic names occurring in the volume.

In the bibliography there are given about 4,600 titles. Accompanying each is a statement of the number of pages occupied by the work and the number of plates or figures. If the memoir or paper is found in some serial publication, the name of this is given together with the volume and pages. All of the titles have been obtained through actual examination of the scientific journals. In the case of many of these the search has been made page by page, since the indexes are so often deficient that they can not be wholly relied on. The end in view throughout has been to find all that the paleontologist will need in his work and to give correct citations.

The titles of works and papers are given under the names of the authors, and these authors' names are presented in alphabetical order. Each author's papers are arranged in the sequence of the years of publication. Each title is preceded by the author's name, the year of publication, and a letter of the alphabet, A, B, C, etc., according to the number of papers published during that year, as "Leidy, J., 1868 A," "1868 B" to "1868 J." If an author has issued more than 26

papers in any year, the additional papers are indicated by the letters AA, BB, etc. Thus we have "Cope, E. D., 1884 JJ." It must be understood that it is not here implied that the papers of any author in any year have been issued in the order in which they follow each other in this bibliography. In the case of an author who, like Professor Cope, was publishing numerous memoirs, papers, and notes in many journals and Government publications, it is manifestly almost impossible to ascertain the exact order of issue. If any student should be under the necessity of determining such order, he will have to address himself to the task.

How successful the writer has been in collecting a complete list of species only practical use of the book will prove. What has been spoken of above as a list of the known species is, however, far more, for under each species each genus and each group of higher rank represented by any North American fossil species there has been included references to the literature appertaining to it—that is, to put it in another way, each paper and memoir and book cited in the bibliographical portion has been examined, and the proper citations of it have been recorded under the species, genera, etc., of the catalogue of species. An estimate has shown that there are over 40,000 citations recorded. Nevertheless, it is not improbable that some important things have escaped attention.

In the catalogue the writer has not usually cited directly the place of publication of authors' papers, but has referred to them as notated in the bibliography. If, to give an illustration, the student finds under *Ceratops* the citation, "Marsh, O. C., 1888 C, p. 477," he must turn to the list of Professor Marsh's papers for the year 1888 and run down the list to the letter C. He will find there the complete title of that paper, place of publication, etc. This method of citation has been adopted for the following reasons: (1) To economize labor in the preparation of this book. The writer does not feel that it could ever have been completed had he been compelled to cite the journal and volume according to the usual method for all of the approximately 40,000 references herein contained. (2) To bring the size of this bulletin within limits convenient for use. To refer to papers in the usual way, even with intelligible abbreviations, would have increased the size of this volume probably 50 per cent or more. (3) Because the writer believes that, on the whole, the method here employed will save the time of the student. If the place of publication alone is given, no clue whatever is afforded to the nature of the paper. It may or may not contain something of value to him. In this bulletin he has the complete title. If he is studying the dentition of a fossil vertebrate, and the paper which he finds cited deals with the vertebræ, or the carpus, or the habits of the animal in question, he needs to go no further. The time saved in making one trip to a

library will compensate for any trouble undergone in turning from the catalogue to the bibliography. This method of reference, with some modifications, is in frequent use by scientific writers, though it has probably not been employed before on so large a scale.

Some further explanation may be made regarding the systematic portion of this work. Under each genus and species there will be found, first of all, a reference to the original description. This is followed by the other citations, arranged according to authors in alphabetic order, years of publication, and symbols. If the author cited has employed a generic or specific name different from the one adopted, this is thrown in parenthetically after the citation.

The writer has arranged the classes, orders, families, and genera of our fossil vertebrates according to what has seemed to him to be their natural relationships. This has appeared to him to be preferable to arranging them all alphabetically, although he does not overlook the advantages of the latter method. On the other hand, the species of each genus is here disposed in alphabetical order for the reason that it will save much time in finding them, while attempts at giving them a natural arrangement are often futile.

As regards nomenclature the writer has followed the rules of the American Ornithological Union, because he believes that they meet the requirements of systematic work more completely and consistently than those adopted by any other body of zoologists.

The coming years will surely witness a great increase in our knowledge of the beings which in past ages have peopled our continent. As a result of discoveries and investigations many new forms will be described, while again perhaps many genera and species which are now accepted will be reduced to synonymy. This will, before many years, make obsolete many of the names here adopted, but it is the purpose of this work to facilitate just such discoveries and investigations and changes.

The writer takes pleasure in expressing his obligations to many friends for assistance and encouragement in prosecuting his work on this volume. Encouragement has been afforded by all, or nearly all, of the vertebrate paleontologists of the United States, and as many as have been applied to have given the information desired. Financial assistance has been given by the Smithsonian Institution, and for this acknowledgments are due, especially to its officers, Secretary S. P. Langley and Assistant Secretary Richard Rathbun; and to Hon. C. D. Walcott, director of the United States Geological Survey. Acknowledgments are due to Dr. Theodore Gill for advice with regard to matters pertaining to nomenclature, to scientific literature, and to classification. It must not, however, be inferred that he is responsible for any innovations that have been made. Dr. Leonhard Stejneger, curator of the department of reptiles, United States National Museum, has

answered many questions with regard to nomenclature and has given assistance in other ways. The classification of the birds here adopted is, with slight modification, that proposed by him in the *Standard Natural History*, 1885. Prof. Frederick A. Lucas, assistant curator of the department of comparative anatomy, United States National Museum, has been helpful in many ways, and to him is due the final disposition of certain of the genera and species.

AMERICAN MUSEUM OF NATURAL HISTORY,

New York, May 1, 1901.

BIBLIOGRAPHY AND CATALOGUE OF THE FOSSIL VERTEBRATA OF NORTH AMERICA.

By OLIVER PERRY HAY.

BIBLIOGRAPHY.

- Adam, Walter.** 1834 A
On some symmetrical relations of the bones of the megatherium.
Report Brit. Assoc. Adv. Sci., 3d meeting, Cambridge, 1833, pp. 437-440.
- Adams, A. Leith.** 1874 A
Concluding report on the Maltese fossil elephants.
Report Brit. Assoc. Adv. Sci., 43d meeting, Bradford, 1873, pp. 185-187.
- 1875 A
On a fossil saurian vertebra (*Arctosaurus osborni*), from the arctic regions.
Proc. Roy. Irish Acad. (2), ii, pp. 177-179, with 4 text figs.
- 1877 A
A fossil saurian from the arctic regions.
Amer. Jour. Sci. (3), xiii, p. 316.
Describes *Arctosaurus osborni* Adams.
- 1877 B
Monograph of the British fossil elephants. Part I. Dentition and osteology of *Elephas antiquus*.
Palaeontographical Society, xxxi, pp. 1-68; pls. i-v.
- 1879 A
Monograph of the British fossil elephants. Part II. Dentition and osteology of *Elephas primigenius* (Blumenbach).
Palaeontographical Society, xxxiii, pp. 69-146; pls. vi-xv.
- 1881 A
Monograph of the British fossil elephants. Part III. Osteology of *E. primigenius* and dentition and osteology of *E. meridionalis*.
Palaeontographical Society, xxxv, pp. 147-265; pls. xvi-xxviii.
- Adams, C. B.** 1846 A
Notice of a small Ornithichnite.
Amer. Jour. Sci. (2), ii, pp. 215-216, with 2 figs.
- Adams, George I.** 1895 A
Two new species of *Dinictis* from the White River beds.
Amer. Naturalist, xxix, pp. 573-578; pl. xxvi and 1 text fig.
Descriptions of *Dinictis fortis* and *D. bombifrons*.
- 1896 A
The extinct *Felidae* of North America.
Amer. Jour. Sci. (4), i, pp. 419-444, with pls. x-xii.
- 1896 B
On the species of *Hoplophoneus*.
Amer. Naturalist, xxx, pp. 46-51; pls. i, ii.
Describes new species *H. insolens* and *H. robustus*.
- 1897 A
On the extinct *Felidae*.
Amer. Jour. Sci. (4), iv, pp. 145-149, with 8 figs.
Abstract in Princeton Univ. Bull., ix, pp. 16-17, 1897.
- Adloff, Paul.** 1898 A
Zur Entwicklungsgeschichte des Nagetiergebisses.
Jenaische Zeitschr. Naturwiss., xxxii, pp. 347-410, with pls. xii-xvi and 4 figs. in the text.
- Agassiz, Louis.** 1835 A
On the fossil fishes of Scotland.
Report Brit. Assoc. Adv. Sci., 4th meeting, Edinburgh, 1834, pp. 646-647.
Description of new genus *Megalichthys*, type *M. hiberni*.
- 1841 A
[Note on fossil jaw, on which is based the genus *Phocodon*, type *P. scillæ* Ag.]
Valentin's Repertorium f. Anat. Physiol., vi, p. 236.

Agassiz, Louis—Continued. 1843 A
Report on the fossil fishes of the
Devonian system or Old Red sandstone.
Report Brit. Assoc. Adv. Sci., 12th meeting,
Manchester, 1842, pp. 80-88.

1843 B
Recherches sur les poissons fossiles.
Tome I: pp. i-xxxii; 1-188; atlas of 11 pls.
(A-K.)

Tome II: pp. i-xii; pt. 1, 1-310; pt. 2, 1-144;
atlas of 146 pls.

Tome III: pp. I-viii; 1-390; 1-32; atlas of 83 pls.

Tome IV: pp. i-xvi; 1-292; 1-22; atlas of 61 pls.

Tome V: pp. i-xii; 1-160; 1-144; atlas of 95 pls.

This work was issued in livraisons at various
times from 1833 to 1844. The dates of publica-
tion of the livraisons and of the plates are
given in Woodward and Sherborn's Catalogue
of British Fossil Vertebrates, pp. xxv-xxix.

Under the genera and species of the present
work the actual date of publication, if not 1843,
is generally given in parentheses after "1843 B."

1844 A
Synoptical table of British fossil
fishes, arranged in the order of the
geological formations.

Report Brit. Assoc. Adv. Sci., 13th meeting,
Cork, 1843, pp. 194-207.

1844 B
Monographie des poissons fossiles du
vieux grès rouge ou système Dévonien
(Old Red sandstone) des Isles Britan-
niques et de Russie.

Pp. i-xxxvi; 1-171, with pls. A-I; i-xxxiii,
Neuchâtel (Suisse).

1845 A
Report on the fossil fishes of the
London clay.

Report Brit. Assoc. Adv. Sci., 14th meeting,
York, 1844, pp. 279-310.

1846 A
On the ichthyological fossil fauna of
the Old Red sandstone.

Edinb. New Philos. Jour., xli, pp. 17-49.

From Monographie des poissons foss. du
vieux grès rouge.

1848 A
[Letter to Dr. Gibbes regarding
Dorudon.]

Proc. Acad. Nat. Sci. Phila., iv, p. 4.

1849 A
[Remarks on crocodiles of the Green
sand of New Jersey and on *Atlantochelys*.]

Proc. Acad. Nat. Sci. Phila., iv, p. 169.

Contains no descriptions.

Agassiz, Louis—Continued. 1850 A
On the fossil remains of an elephant
found in Vermont.

Proc. Amer. Assoc. Adv. Sci., 2d meeting,
Cambridge, Mass., pp. 100-101.

Said by Professor Agassiz to be found for
the first time in this country.

1850 B
Remarks on finding femur of *Atlantochelys*.

Proc. Nat. Hist. Soc. Boston, iii, p. 351.

No adequate description and no specific
name.

1851 A
[Announcement of the finding of the
head of a walrus on New Jersey shore.]
Proc. Amer. Assoc. Adv. Sci., 4th meeting,
New Haven, 1850, p. 252.

1851 B
Report on the vertebrate fossils ex-
hibited to the Association (abstract).
Proc. Amer. Assoc. Adv. Sci., 5th meeting,
Washington, D. C., 1851, pp. 178-180.

1853 A
Notice of Joseph Leidy's "Memoir
of the extinct species of American ox."
Amer. Jour. Sci. (2), xvi, p. 281.

1856 A
Notice of the fossil fishes found in
California by W. P. Blake.

Amer. Jour. Sci. (2), xxi, pp. 272-275.

Describes 11 new species of Elasmobranchs.
The same species were described and figured
in Pacific Survey Report, v, pp. 313-316, pl. i.

1857 A
Notice of the fossil fishes.
Pacific Survey Report, v, pp. 313-316, with
pl. i.

Contains descriptions and figures of 11 new
species of Elasmobranchs.

1857 B
Contributions to the natural history
of the United States of America. Vol.
i, pt. ii, North American *Testudinata*.

Pp. 235-452d, with pls. i-xxvii.

The plates are found in vol. ii. This vol-
ume is devoted mostly to the embryology of
the *Testudinata*.

1862 A
Highly interesting discovery of new
sauroid remains.

Amer. Jour. Sci. (2), xxxiii, p. 138.

Refers to the discovery of *Eosaurus* by O. C.
Marsh; no name yet proposed.

- Agassiz, Louis**—Continued. 1862 B
Mastodon tooth in Amador County, Cal.
Amer. Jour. Sci. (2), xxxiv, p. 185.
Editorial note supposed to have been written by Agassiz.
- 1862 C
Remarks on the megatheroids.
Proc. Nat. Hist. Soc. Boston, ix, pp. 101-102.
- 1863 A
Note on the megatherium.
Amer. Jour. Sci. (2), xxxvi, p. 300.
- 1863 B
[Remarks on *Megatherium*.]
Proc. Nat. Hist. Soc. Boston, ix, p. 193.
- Ahlborn, Fr.** 1896 A
Zur Mechanik des Vogelfluges.
Abhandl. Naturwiss. Verein Hamburg, xiv, pp. 7-134, with 54 figs. in the text.
- Albrecht, Paul.** 1879 A
Ueber den Stammbaum der Raubthiere.
Schriften d. phys.-ökon. Gesellsch. Königsberg, xx, Bericht, pp. 22-23.
Presents an arrangement of the families of the *Carnivora*.
- 1886 A
Über die cetoide Natur der *Promammalia*.
Anatomischer Anzeiger, i, pp. 338-350.
- Alessandri, G. De.** 1896 A
Avanzi di *Oxyrhina hastalis* del miocene di Alba.
Atti Soc. Ital. Sci. Nat., Milano, xxxvi, pp. 263-269, with pl. i.
- Alezais, Henri.** 1898 A
Étude anatomique du cobaye (*Cavia cobaya*).
Jour. l'Anat., Physiol. norm. et patholog., xxxiv, pp. 735-756, with 5 text figs.
- 1899 A
Étude anatomique du cobaye (*Cavia cobaya*).
Jour. l'Anat., Physiol., norm. et patholog., xxxv, pp. 333-381.
- Allen, Harrison.** 1880 A
On some homologies in bunodont dentition.
Proc. Acad. Nat. Sci., Phila., pp. 226-228.
- 1882 A
On a revision of the ethmoid bone in the *Mammalia*, with special reference to the description of this bone and of the sense of smelling in the *Cheiroptera*.
Bull. Mus. Comp. Zool., x, pp. 135-164, with pls. i-vii.
- Allen, Harrison**—Continued. 1886 A
On the tarsus of bats.
Amer. Naturalist, vol. xx, pp. 176-176, with 6 illus.
- 1886 B
On the types of tooth structure in *Mammalia*.
Amer. Naturalist, xx, pp. 296-297.
- 1888 A
The occipito-temporal region in the crania of *Carnivora*.
Science, xi, p. 71.
- 1889 A
Remarks on the pronghorn (*Antilocapra americana*).
Proc. Amer. Philos. Soc., xxvi, pp. 366-367.
- 1891 A
Prof. Joseph Leidy: His labors in the field of vertebrate anatomy.
Science, xviii, pp. 274-276.
- 1893 A
A monograph of the bats of North America.
Bull. U. S. Nat. Mus. No. 43, pp. 198, 38 pls. Washington, D. C., 1893.
- Allen, Joel Asaph.** 1876 A
Description of some remains of an extinct species of wolf, and an extinct species of deer from the lead region of the Upper Mississippi.
Amer. Jour. Sci. (3), xi, pp. 47-51.
- 1876 B
The American bisons, living and extinct.
Mem. Kentucky Geol. Surv., i pt. ii, pp. i-ix; 1-246, with pls. i-xii.
Mem. Mus. Comp. Zool., iv, No. 10, pp. i-ix; 1-246, with pls. i-xii and map.
- 1876 C
Geographical variation among North American mammals, especially with respect to size.
Bull. U. S. Geol. and Geog. Surv. Terr., ii, pp. 309-344.
- 1877 A
Monographs of North American *Rodentia*.
Report U. S. Geol. Surv. Terr., F. V. Hayden, U. S. geologist in charge, vol. xi.
No. ii, *Leporidae*, pp. 265-378; No. iii, *Hystriidae*, pp. 379-398; No. iv, *Lagomyidae*, pp. 399-414; No. v, *Castoroididae*, pp. 415-426; No. vi, *Castoridae*, pp. 427-454; No. xi, *Sciuridae*, pp. 631-940.

Allen, Joel Asaph—Continued. 1877 B
Synoptical list of the extinct *Rodentia* of North America.

Report U. S. Geol. Surv. Terr., F. V. Hayden, U. S. geologist in charge, vol. xi, pp. 943-949.

This list forms a portion of the volume containing J. A. Allen's and E. Coues's monographs of N. A. *Rodentia*.

In this list most of the species are mentioned without comment.

1878 A

Description of a fossil passerine bird from the insect-bearing shales of Colorado.

Bull. U. S. Geol. and Geog. Surv. Terr., 1878 iv, pp. 443-445, with pl. i.

See also Nature, vol. xviii, pp. 204-205; Amer. Jour. Sci., 1878, xv, p. 381.

Describes *Palaeoptiza bella*.

1879 A

On the species of the genus *Bassaris*.

Bull. U. S. Geol. and Geog. Surv. Terr., v, pp. 331-340.

Presents the synonymy and the literature bearing on this genus and its species.

1880 A

History of North American Pinnipeds; a monograph of the walruses, sea lions, sea bears, and seals of North America.

Pp. i-v; 1-785, with 60 figs. in the text. Washington, 1880.

1881 A

Preliminary list of works and papers relating to the mammalian orders *Cete* and *Sirenia*.

Bull. U. S. Geol. and Geog. Surv. Terr., vi, pp. 399-562.

1885 A

On an extinct type of dog from Ely Cave, Lee County, Virginia.

Mem. Mus. Comp. Zool., x, No. 2, pp. 1-8, with pls. i-iii.

Describes *Pachycyon robustus*, Allen. This paper is followed (pp. 8-13) by one by N. S. Shaler on the age of the cave.

1887 A

Note on Squalodont remains from Charleston, S. C.

Bull. Amer. Mus. Nat. Hist., ii, pp. 35-39, with pls. v, vi.

Describes *Squalodon tiedemani*, sp. nov.

1893 A

Descriptions of four new species of *Thomomys*, with remarks on other species of the genus.

Bull. Amer. Mus. Nat. Hist., v, pp. 47-68, with pl. i.

Allen, Joel Asaph—Continued. 1900 A
The North American jumping mice. Amer. Naturalist, xxxiv, pp. 199-202.

Allen, John H. 1846 A
Some facts respecting the geology of Tampa Bay.

Amer. Jour. Sci. (2), i, pp. 38-42.

Allis, Edward P. 1889 A
The anatomy and development of the lateral line system in *Amia calva*. Jour. Morphology, ii, pp. 463-540, with pls. xxx-xlii.

1899 A
On certain homologies of the squamosal, intercalar, exoccipital, and extrascapular bones of *Amia calva*. Anatom. Anzeiger, xvi, pp. 49-72.
Appended is a list of 36 papers bearing on the subject.

1899 B
A reply to certain of Cole's criticisms of my work on *Amia calva*. Anatom. Anzeiger, xv, pp. 364-379.

1900 A
The premaxillary and maxillary bones and the maxillary and mandibular breathing valves of *Polypterus bichir*. Anatom. Anzeiger, xviii, pp. 257-289, with 3 figs. in the text.

Alston, Edward R. 1876 A
On the classification of the order *Glires*. Proc. Zool. Soc., Lond., 1876, pp. 61-98, with pl. iv and 5 figs. in the text.

Alth, Alois v. 1874 A
Ueber die paläozoischen Gebilde Podoliens und deren Versteinerungen. Abhandl. k. k. geolog. Reichsanstalt, Wien, vii, pp. 1-77, pls. i-iv.
Cephalaspis, *Pteraspis*, *Cyathaspis*, and *Cocosteus*.

1886 A
Ueber die Zusammengehörigkeit der den Fischgattungen *Pteraspis*, *Cyathaspis*, und *Scaphaspis* zugeschriebenen Schilder.

Beiträge zur Paläont. Österreich-Ungarns und des Orients, v. Heft. iii, pp. 61-73, with pl. xxiv.

Ameghino, Florentino. 1883 A
Sobre la necesidad de borrar el género *Schistopleurum* y sobre la clasificación y sinonimia de los Glyptodontes en general.

Bol. Acad. Nac. Ciencias, Córdoba, Argentina, v, pp. 1-34.

Ameghino, Florentino—Cont'd. 1886 A
Contribuciones al conocimiento de
los mamíferos fósiles de los terrenos
terciarios antiguos del Paraná.

Bol. Acad. Nac. Ciencias, Córdoba, Argentina, ix, pp. 1-228.

1889 A

Contribucion al conocimiento de los
mamíferos fósiles de la República
Argentina, obra escrita bajo los aus-
picios de la Academia Nacional de
Ciencias de la República Argentina
para presentarla á la Exposicion Uni-
versal de Paris de 1889.

Buenos Aires, 1889. Folio, pp. i-xxxiii; 1-1027, with atlas of pls. i-xviii.

1891 A

Observaciones criticas sobre los
caballos fósiles de la República Argen-
tina.

Revista Argentina de Historia Natural, i,
pp. 4-17; 66-88.

1891 B

Los Plagiaulacidos argentinos y sus
relaciones zoológicas, geológicas y geo-
gráficas.

Revista Argentina de Historia Natural, i,
pp. 38-44.

1891 C

Adicion á la memoria del Dr. H. von
Ihering sobre la distribucion geográfica
de los Creodontes.

Revista Argentina de Historia Natural, i,
pp. 214-219.

1891 D

Determinacion de algunos jalones
para la restauracion de las antiguas co-
nexiones del continente Sud-americano.

Revista Argentina de Historia Natural, i,
pp. 282-288.

1892 A

Répliques aux critiques du Dr. Bur-
meister sur quelques genres de mam-
mifères fossiles de la République
Argentine.

Bol. Acad. Nac. Ciencias, Córdoba, xii, pp.
437-469; also as separate with pp. 2-35.

1894 A

Enumération synoptique des espèces
mammifères fossiles des formations
éocènes de Patagonie.

Bol. Acad. Nac. Ciencias, Córdoba, xiii, pp.
269-452, with 66 figs. in the text.

Bull. 179—2

Ameghino, Florentino—Cont'd. 1896 A
Sur l'évolution des dents des mammi-
fères.

Bol. Acad. Nac. Ciencias, Córdoba, Argen-
tina, xiv, pp. 381-517.

1897 A

Mammifères crétacés de l'Argentine.
Deuxième contribution à la connais-
sance de la faune mammalogique des
couches à Pyrotherium.

Bol. Institut Geogr. Argentino, xviii, pp.
1-117, with 86 figs. in the text.

Many new genera and species described.
Contains brief references to papers by Prof. O. C.
Marsh and Dr. J. L. Wortman on the *Tenio-*
donia. Reviewed by M. Schlosser in Neues
Jahrb. Min., 1900, ii, pp. 296-306.

1898 A

An existing ground-sloth in Patago-
nia.

Natural Science, xiii, pp. 324-326.

A translation of the original paper, which
was published in La Plata, Argentina, 1898.

1898 B

Sur l'évolution des dents des mammi-
fères.

Bull. Soc. Géol. France (3), xxvi, pp. 497-
499

1899 A

On the primitive type of the plexo-
dont molars of mammals.

Proc. Zool. Soc. Lond., 1899, pp. 556-571,
with 16 figs. in the text.

— See also Gervais and Ameghino.

American Geologist.

1888 A

[Editorial notice of a paper by Dr.
Traquair on fossil fishes printed in
Geological Magazine for May, 1888.]

Amer. Geologist, ii, p. 133.

1891 A

New discoveries by Dr. Clarke in the
fish beds of the Devonian.

Amer. Geologist, vii, pp. 143-144.

From reports of meeting of Amer. Assoc.
Adv. Sci.

1891 B

The oldest fish remains known.

Amer. Geologist, vii, pp. 329-330.

Editorial comment on discoveries in Colo-
rado by C. D. Walcott.

1891 C

Discovery of mastodon remains in
the Shenandoah Valley.

Amer. Geologist, vii, p. 335.

Editorial note regarding finding of bones
of the mastodon in Rockingham County, Va.

- American Geologist**—Cont'd. 1891 D
[Editorial comment on Dr. G. Baur's
"Remarks on the reptiles generally
called *Dinosauria*," published in Amer.
Naturalist, xxv, pp. 434-454.]
Amer. Geologist, viii, pp. 55-56.
- 1891 E
Supposed Trenton fossil fish.
Amer. Geologist, viii, pp. 178-180.
Editorial comment on C. D. Walcott's Lower
Silurian fishes.
- 1891 F
Man and the mammoth.
Amer. Geologist, viii, pp. 180-183.
Editorial comment on paper by M. Max.
Lohes presented before the International Geo-
logical Congress at Belgium.
- 1891 G
"Personal and scientific news."
Amer. Geologist, viii, pp. 191, 198.
Notes on the finding of various vertebrates
in Florida by Dr. J. Kost, and of *Megalonyx* in
Tennessee by Professor Safford.
- 1892 A
Prehistoric horses.
Amer. Geologist, ix, pp. 67-68.
Editorial comment on Professor Cope's paper
in Amer. Naturalist for October, 1891.
- American Journal of Science.** 1828 A
Teeth of the mastodon.
Amer. Jour. Sci. (1), xiv, pp. 187-188.
A notice, taken from the New York Times,
regarding the finding of teeth of mastodon at
Sharon, Conn.
- 1835 A
Vertebral bone of a mastodon.
Amer. Jour. Sci., xxvii, pp. 165-166.
Found in Connecticut.
- 1845 A
Large skeleton of the *Zeuglodon* of
Alabama.
Amer. Jour. Sci., xlix, p. 218.
Extract from Mobile Daily Advertiser of
May 23, 1845. Refers to skeleton found by Dr.
Koch.
- 1845 B
Fossil footmarks found in strata of
the Carboniferous series in Westmore-
land County, Pa.
Amer. Jour. Sci., xlviii, pp. 217-218.
- 1845 C
Remarks [on paper by A. T. King].
Amer. Jour. Sci., xlviii, p. 343,
See King, A. T. 1845 A.
- 1846 A
The mastodon of Newburgh, N. Y.,
discovered in August, 1845.
Amer. Jour. Sci. (2), i, pp. 268-270.
- American Journal of Science**—Con-
tinued. 1846 B
Mastodon giganteus.
Amer. Jour. Sci. (2), ii, pp. 181-183, with
1 fig. in text.
An unsigned editorial.
- 1847 A
Harlanus, a new genus of fossil pachy-
derms.
Amer. Jour. Sci. (2), iii, p. 125.
Editorial note on paper by R. Owen, in Proc.
Acad. Phila., iii, pp. 98-96. 1846. (Owen, R.
1846 A.)
- 1847 B
Ornithichnites.
Amer. Jour. Sci. (2), iii, p. 276.
- 1852 A
The *Mastodon giganteus* of North
America, by John C. Warren, M. D.
Amer. Jour. Sci. (2), xiv, p. 454.
An editorial notice of Dr. Warren's book.
- 1852 B
On a fossil saurian of the New Red
sandstone formation of Pennsylvania,
with some account of that formation,
etc., by Isaac Lea.
Amer. Jour. Sci. (2), xiv, p. 451.
Editorial notice of Lea's paper in Jour.
Acad. Nat. Sci. Phila. (2), ii, pt. 8.
- 1853 A
Notice of the "*Mastodon giganteus*" of
Dr. J. C. Warren.
Amer. Jour. Sci., xv, pp. 367-373.
An editorial notice of Dr. Warren's work on
the mastodon.
- 1853 B
Fossil elephant.
Amer. Jour. Sci. (2), xv, p. 146.
Editorial note on occurrence of fossil ele-
phant at Zanesville, Ohio.
- 1871 A
Notice of Cope's "Synopsis of the
extinct *Batrachia* and *Reptilia* of North
America."
Amer. Jour. Sci. (3), i, pp. 220-221.
- 1872 A
On two new Ornithosaurians from
Kansas, by Edward D. Cope.
Amer. Jour. Sci. (3), iii, pp. 374-375.
Editorial notice of Cope's paper with above
title, in Amer. Phil. Soc., xii, p. 420.
- 1873 A
[Editorial remarks on Professor
Cope's "Note on the Cretaceous of
Wyoming," said to be published in
Proc. Phil. Soc. Phila.]
Amer. Jour. Sci. (3), v, p. 231.

American Journal of Science—Continued. 1875 A

A new mastodon.

Amer. Jour. Sci. (3), ix, p. 222.

Editorial notice of announcement by Professor Cope.

1876 A

Fifth annual report of the Geological Survey of Indiana, made during the year 1873.

Amer. Jour. Sci. (5), xii, p. 307.

Editorial notice.

1882 A

Mastodons in New Jersey.

Amer. Jour. Sci. (3), xxiv, pp. 294-296.

Editorial notice of paper by Professor Lockwood.

American Naturalist. 1869 A

The egg of the great auk.

Amer. Naturalist, iii, p. 550.

A note without signature.

1871 A

Fossil whale in the Drift.

Amer. Naturalist, v, p. 125.

Extract from Nature.

1871 B

Fossil walrus.

Amer. Naturalist, v, p. 316.

Notice of exhibition of skull of walrus by Professor Newberry.

Ami, Henry M. 1891 AOn some extinct *Vertebrata* from the Miocene rocks of the north-west territories of Canada recently described by Professor Cope.

Science, xviii, p. 53.

See also *Ottawa Naturalist*, v, pp. 74-77, for abstract.

1898 A

The mastodon in western Ohio.

Science (n. s.), vii, p. 80.

Ammon, Ludwig v. 1885 AUeber *Homæosaurus maximiliani*.

Abhandl. math.-phys. Classe k. bayerischen Akad. Wissensch., xv, pp. 499-528, with pls. i, ii.

1896 A

Ueber neue Stücke von *Ischyodus*.

Berichte naturw. Vereins Regensburg, 1894-95, Heft v, pp. 252-263, with pls. v, vi.

Anderson, John. 1860 A

On Dura Den sandstone.

Report Brit. Assoc. Adv. Sci., 29th meeting, Aberdeen, 1859, p. 97.

1861 A

Report on the excavations in Dura Den.

Report Brit. Assoc. Adv. Sci., 30th meeting, 1860, pp. 32-34.

Treats of *Holoptychius*, etc.**Andress, A.** 1893 A*Acrosaurus frischmanni* H. v. Meyer.

Ein dem Wasserleben angepasster Rhynchocephale von Solenhofen.

Bericht Senckenb. naturforsch. Gesellsch., 1893, pp. 21-34, with pls. i, ii.

1893 B

Vorläufige Mittheilung über die Ganoïden (*Lepidosteus* und *Amia*) des Mainzer Beckens.

Verhandl. naturhist.-medicin. Vereins Heidelberg, (n. s.), v, pp. 7-15, with 2 text figs.

Contains remarks on North American genera *Lepidosteus*, *Claesius*, *Amia*, *Pappichthys*.**Andrews, Charles W.** 1895 ANote on a specimen of *Keraterpdon galvani* Huxley, from Staffordshire.

Geol. Mag. London (4), ii, pp. 81-84, with 1 text fig.

1895 B

Note on a skeleton of a young plesiosaur from the Oxford clay of Peterborough.

Geol. Mag. London (4), ii, pp. 241-243, with pl. ix and 1 text fig.

1895 C

On the development of the shoulder-girdle of a plesiosaur (*Cryptoclidus oxoniensis*, Phillips sp.), from the Oxford clay.

Ann. and Mag. Nat. Hist. (6), xv, pp. 338-346, with 4 woodcuts in the text.

1895 D

On the structure of the skull in *Peloneustes philarchus*, a plesiosaur from the Oxford clay.

Ann. and Mag. Nat. Hist. (6), xvi, pp. 242-256, with pl. xiii and 3 figs. in the text.

1895 E

The pectoral and pelvic girdles of *Muraenosaurus plicatus*.

Ann. and Mag. Nat. Hist. (6), xvi, pp. 429-434, with 3 figs. in the text.

1896 A

On the structure of the plesiosaurian skull.

Quart. Jour. Geol. Soc., lii, pp. 246-252, with pl. ix and 2 figs. in the text.

1897 A

Note on the cast of the brain cavity of *Iguanodon*.

Ann. and Mag. Nat. Hist. (6), xix, pp. 583-591, with pl. xvi and 1 text fig.

Andrews, Edmund. 1875 A

Dr. Koch and the Missouri mastodon.

Amer. Jour. Sci. (3), x, pp. 32-34.

- Annan, Robert.** 1793 A
Account of a large animal found near Hudson River.
Memoirs Amer. Acad. Arts and Sci. (1), II, pp. 160-164.
Describes what appears to have been the skeleton of a mastodon.
- Anonymous.** 1834 A
Teeth of the elephant and mastodon.
Amer. Jour. Sci., xxv, pp. 257-258.
Found in Ohio.
- 1837 A
Fossil remains of the elephant, *Elephas primigenius*.
Amer. Jour. Sci., xxxii, pp. 377-379.
- Atthey, Thomas.** 1868 A
Notes on various species of *Ctenodus*, obtained from the shales of the Northumberland coal field.
Ann. and Mag. Nat. Hist. (4), vol. i, pp. 77-87.
Also in Nat. Hist. Trans. Northumberland and Durham, III, 1868, pp. 54-66, pls. I-III. Here the paper is credited to Hancock and Atthey.
- 1868 B
On the occurrence of palatal teeth belonging to the genus *Climaxodus* M'Coy in the Low Main shale of Newsham.
Ann. and Mag. Nat. Hist. (4), II, pp. 321-323.
Also in Nat. Hist. Trans. Northumberland and Durham, III, 1868, pp. 306-309.
- 1875 A
On the articular bone and supposed vomerine teeth of *Ctenodus obliquus*, and on *Palæoniscus hancocki*, n. sp., from the Low Main, Newsham, Northumberland.
Ann. and Mag. Nat. Hist. (4), vol. xv, pp. 309-312, pl. xix.
- 1876 A
On *Anthracosaurus russelli* (Huxley).
Ann. and Mag. Nat. Hist. (4), xviii, pp. 146-167, with pls. VIII-XI.
- 1877 A
Notes on a paper by R. H. Traquair, M. D., F. G. S., F. R. S., on the structure of the lower jaw in *Rhizodopsis* and *Rhizodus*.
Ann. and Mag. Nat. Hist. (4), vol. xx, pp. 129-130.
See reply to this on p. 244, same volume.
— See also **Hancock and Atthey.**
- Atwater, Caleb.** 1820 A
On some ancient human bones, etc., with a notice of the bones of the mastodon or mammoth, and of various shells found in Ohio and the West.
Amer. Jour. Sci. (1), II, pp. 242-246, with pl. II.
- Auld, Robert C.** 1892 A
As to the "extinction" of the American horse.
Science, xx, p. 135.
- Ayres, Howard.** 1893 A
On the genera of the *Dipnoi dipneumones*.
Amer. Naturalist, xxvii, pp. 919-932.
- Baer, K. E. von.** 1840 A
Untersuchungen über die ehemalige Verbreitung und gänzliche Vertilgung der von Steller beobachteten nordischen Seekuh (*Rytina*, Ill.).
Mém. Acad. Imp. Sci., St.-Petersbourg (6), Sci. Nat., III., pp. 53-80.
- 1866 A
Neue Auffindung eines vollständigen Mammuths mit der Haut und den Weichtheilen, im Eisboden Sibiriens, in der Nähe der Bucht des Tas.
Mélanges biol. Bull. Acad. Imp. Sci. St. Pétersb., v, pp. 644-740, with 1 pl.
- 1867 A
Fortsetzung der Berichte über die Expedition zur Aufsuchung des angekündigten Mammuths.
Mélanges biol. Bull. Acad. Imp. Sci. St. Pétersb., v, pp. 42-72, with pl.
- Baikie, Balfour.** 1857 A
On the skull of a manatus from Western Africa.
Proc. Zool. Soc. London, 1857, pp. 29-33, pl. II.
- Baird, Spencer F.** 1850 A
On the bone caves of Pennsylvania.
Proc. Amer. Assoc. Adv. Sci., 2d meeting, Cambridge, 1849, pp. 352-355.
- 1857 A
Mammals of North America; the descriptions of species based chiefly on the collection in the museum of the Smithsonian Institution, with 87 pls. of original figs., all illustrating the genera and species and including details of external appearance and osteology.
Philadelphia, 1859, 4to: pp. I-xxxiv; 1-764, with pls. I-Lxxxvii, and a number of text figs.
- Balfour, F. M.** 1881 A
On the development of the skeleton of the paired fins of *Elasmobranchii*, considered in relation to its bearings on the nature of the limbs of the *Vertebrata*.
Proc. Zool. Soc. London, 1881, pp. 662-671, with pls. I-VII and VIII and 2 woodcuts in the text.

- Balfour, F. M.**—Continued. 1882 A
On the structure and development of
Lepidosteus.
Philos. Trans. Roy. Soc. London, clxxxiii,
pp. 359-442, pls. 21-29.
- Barbour, Edwin H.** 1890 A
Remains of the primitive elephant
found in Grinnell, Iowa.
Science, xvi, p. 263.
- 1890 B
Notes on the palaeontological labora-
tory of the United States Geological
Survey under Professor Marsh.
Amer. Naturalist, xxiv, pp. 388-400, with 8
woodcuts in the text.
- Barkas, T. P.** 1868 A
On *Climazodus*, or *Pacilodus*; a pala-
tal tooth from the Low Main coal-shale,
Northumberland.
Geol. Magazine (1), v, pp. 496-497.
- 1868 B
On the genus *Diplodus*.
Geol. Magazine (1), v, pp. 580-581.
- 1873 A
Illustrated guide to the fish, amphib-
ian, reptilian, and supposed mamma-
lian remains of the Northumberland
Carboniferous strata.
London, 1873, 8vo., pp. i-viii, 9-117, with a
folio atlas of 10 pls. containing 248 figs.
- 1881 A
Ctenoptychius, or Kamplattien.
Ann. and Mag. Nat. Hist. (5), viii, pp. 350-
354.
- Barkas, W. J.** 1874 A
On the microscopical structure of
fossil teeth from the Northumberland
Coal Measures.
Monthly Review of Dental Surgery, ii, pp.
297-300, 344-349, 386-393, 438-445, 492-498, 533-
539, with figs. i-xxii.
- 1877 A
On the genus *Ctenodus*.
Jour. and Proc. Roy. Soc. N. S. Wales, x, pp.
99-123, with pls. i-v.
Part I. On the genus *Ctenodus*, a fish found
in the true Coal Measures of Great Britain [pp.
99-109]. Part II. On the microscopic structure
of the mandibular and palatal teeth of *Ctenodus*
[pp. 110-115]. Part III. On the vomerine teeth
of *Ctenodus* [pp. 115-120]. Part IV. On the
dentary, articular, and pterygopalatine bones
of *Ctenodus* [pp. 120-123].
- 1878 A
On the genus *Ctenodus*.
Jour. and Proc. Roy. Soc. N. S. Wales, xi,
pp. 51-64.
Part V. On the sphenoid cranial bones, oper-
culum, and supposed ear bones of *Ctenodus*
[pp. 51-57]. Part VI. On the scapula?, cora-
coid, ribs, and scales of *Ctenodus* [pp. 58-64].
- Barkas, W. J.**—Continued. 1878 B
Ctenacanthus, a spine of *Hybodus*.
Jour. and Proc. Roy. Soc. N. S. Wales, xi,
pp. 145-155.
- 1878 C
On a dental peculiarity of the *Lepi-
dosteidae*.
Jour. and Proc. Roy. Soc. N. S. Wales, x, pp.
208-207.
- Barnston, George.** 1863 A
Remarks on the genus *Lutra*, and on
the species inhabiting America.
Canadian Nat. and Geol. (1), viii, pp. 147-
158, with 6 figs. in the text.
- Barrett, L.** 1859 A
On the atlas and axis of the *Plesio-
saurus*.
Report Brit. Assoc. Adv. Sci., 28th meeting,
Leeds, 1858, pp. 78-80.
- Bartlett, John.** 1846 A
Letter regarding the finding of zeu-
glodon bones at Natchez, Miss.
Proc. Nat. Hist. Soc. Boston, ii, p. 96.
- Barton, Benjamin Smith.** 1805 A
Letter to M. Lacépède, of Paris, on
the natural history of America.
Tilloch's Philos. Mag., xii, pp. 97-103; 204-
211.
- Bassani, Francesco.** 1899 A
La ittiofauna del calcare eocenico di
Gassino in Piemonte.
Atti Accad. Sci. Fis. e Mat. Napoli (2), ix, No.
13, pp. 1-41, with pls. i-iii.
- Bate, C. Spence.** 1867 A
On the dentition of the common mole
(*Talpa europæa*).
Ann. and Mag. Nat. Hist. (3), xix, pp. 377-
381, with pl. xi.
- Baudelot, E.** 1873 A
Recherches sur la structure et le dé-
veloppement des écailles des poissons
osseux.
Arch. de Zoologie Expérimentale et Géné-
rale, ii, pp. 429-480.
- 1873 B
Observations sur la structure et le
développement des nageoires des pois-
sons osseux.
Arch. de Zoologie Expérimentale et Géné-
rale, ii, pp. xviii-xxiv of "Notes et Revue."
Treats of the structure and development of
the fin rays.
- Bauer, Franz.** 1898 A
Die Ichthyosaurier des oberen weis-
sen Jura.
Paläontographica, xliiv, pp. 283-328, with
pls. xxv-xxvii.
Although describing only European species
this paper contains much of general interest
to students of this group.

- Bauer, Franz**—Continued. 1900 A
Osteologische Notizen über Ichthyosaurier.
Anat. Anzeiger, xviii, pp. 574-588, with 18 figs. in the text.
Treats of the shoulder girdle, the pelvic girdle, and auditory bones.
- Baur, George.** 1883 A
Der Tarsus der Vögel und Dinosaurier.
Morpholog. Jahrbuch, viii, pp. 417-456, with pls. xix and xx.
Author's copies of this paper were issued in 1882 as an "Inaugural-Dissertation zur Erlangung der Doctorwürde der philosophischen Facultät der Universität München," pp. 1-44, pls. xix and xx.
- 1884 A
Note on the pelvis in birds and dinosaurs.
Amer. Naturalist, xviii, pp. 1273-1275.
- 1884 B
Dinosaurier und Vögel. Eine Erwiderung an Herrn Prof. W. Dames in Berlin.
Morpholog. Jahrbuch, x, pp. 446-454.
- 1884 C
Ueber das Centrale carpi der Säugethiere.
Morpholog. Jahrbuch, x, pp. 455-457.
- 1884 D
Zur Morphologie des Tarsus der Säugethiere.
Morpholog. Jahrbuch, x, pp. 458-461.
- 1884 E
Bemerkungen über das Becken der Vögel und Dinosaurier.
Morpholog. Jahrbuch, x, pp. 613-616.
- 1884 F
Der Carpus der Paarhufer.
Morpholog. Jahrbuch, ix, pp. 597-603.
- 1885 A
A second phalanx in the third digit of a carinate bird's wing.
Science, v, p. 355.
- 1885 B
A complete fibula in an adult living carinate bird.
Science, v, p. 375.
- 1885 C
Zur Vögel-Dinosaurier-Frage.
Zoolog. Anzeiger, viii, pp. 441-443.
- 1885 D
Note on the sternal apparatus in *Iguanodon*.
Zoolog. Anzeiger, viii, pp. 561-562.
- Baur, George**—Continued. 1885 E
Zur Morphologie des Carpus and Tarsus der Reptilien.
Zoolog. Anzeiger, viii, pp. 631-638.
- 1885 F
Ueber das Archipterygium und die Entwicklung des Cheiropterygium aus dem Ichthyopterygium.
Zoolog. Anzeiger, viii, pp. 663-666.
- 1885 G
On the morphology of the tarsus in the mammals.
Amer. Naturalist, xix, pp. 86-88.
- 1885 H
On the centrale carpi of the mammals.
Amer. Naturalist, xix, pp. 195-196.
- 1885 I
The trapezium of the *Camelidae*.
Amer. Naturalist, xix, pp. 196-197.
See also Morphologisches Jahrbuch, xi, pp. 117-118.
- 1885 J
On the morphology of the carpus and tarsus of vertebrates.
Amer. Naturalist, xix, pp. 718-720.
Contains a "morphological table" and a list of papers on the carpus and tarsus.
- 1885 K
Bemerkungen über den "Astragalus" und das "Intermedium tarsi" der Säugethiere.
Morpholog. Jahrbuch, xi, pp. 468-483, with pl. xxvii.
Cites the literature of the subject and gives the results of the author's own observations on the different groups of mammals.
- 1886 A
Ueber das Quadratum der Säugethiere.
Biolog. Centralb., vi, pp. 648-658.
Also in Sitzungsber. Gesellsch. Morphol. und Physiol. München, 1886, pp. 45-57.
- 1886 B
Ueber die Morphogonie der Wirbelsäule der Amnioten.
Biolog. Centralb., vi, pp. 332-342; 353-363.
- 1886 C
Der älteste Tarsus (*Archegosaurus*).
Zoolog. Anzeiger, ix, pp. 104-106.
Compare Baur, G., 1886 I.
- 1886 D
W. K. Parker's Bemerkungen über *Archaeopteryx*, 1864, und eine Zusammenstellung der hauptsächlichsten Literatur über diesen Vogel.
Zoolog. Anzeiger, ix, pp. 106-109.

- Baur, George—Continued.** 1886 E
Die zwei Centralia im Carpus von *Sphenodon* (*Hatteria*) und die Wirbel von *Sphenodon* und *Gecko verticillatus* Laur. (*G. verus* Gray).
Zoolog. Anzeiger, ix, pp. 188-190.
- 1886 F
Bemerkungen über *Sauropterygia* und *Ichthyopterygia*.
Zoolog. Anzeiger, ix, pp. 245-252; 323.
- 1886 G
Osteologische Notizen über Reptilien.
Zoolog. Anzeiger, ix, pp. 685-690; 733-743.
- 1886 H
Ueber die Homologien einiger Schädelknochen der Stegocephalen und Reptilien.
Anatom. Anzeiger, i, pp. 348-350.
See correction in Anat. Anzeiger, vol. ii, p. 657.
- 1886 I
The oldest tarsus (*Archegosaurus*).
Amer. Naturalist, xx, pp. 173-174.
Compare Baur, G., 1886 C.
- 1886 J
The proatlas, atlas, and axis of the *Crocodylia*.
Amer. Naturalist, xx, pp. 288-298, with 5 illus.
- 1886 K
The intercentrum in *Sphenodon* (*Hatteria*).
Amer. Naturalist, xx, pp. 465-466.
- 1886 L
The ribs of *Sphenodon* (*Hatteria*).
Amer. Naturalist, xx, pp. 979-981.
- 1886 M
Ueber die Kanäle im Humerus der Amnioten.
Morpholog. Jahrbuch, xii, pp. 299-303.
- 1887 A
Ueber die Abstammung der amnioten Wirbeltiere.
Biolog. Centralb., vii, pp. 481-493.
Also in Sitzungsbericht der Gesellschaft für Morphologie und Physiologie, München, 1887, pp. 44-61.
- 1887 B
Osteologische Notizen über Reptilien.
Fortsetzung ii.
Zoolog. Anzeiger, x, pp. 96-102.
- 1887 C
On the phylogenetic arrangement of the *Sauropsida*.
Jour. Morphology, i, pp. 93-104.
- Baur, George—Continued.** 1887 D
On the morphology and origin of the *Ichthyopterygia*.
Amer. Naturalist, xxi, pp. 837-840.
Noticed in Geol. Magazine, 1888, v, p. 325.
- 1887 E
On the morphogeny of the carapace of the *Testudinata*.
Amer. Naturalist, xxi, p. 89.
- 1887 F
Ueber die Ursprung der Extremitäten der *Ichthyopterygia*.
Bericht über die xx Versammlung des oberrhein. geolog. Vereins, pp. 1-4, with 1 plate.
Pagination taken from an author's separate; the original "Bericht" not seen.
- 1888 A
Unusual dermal ossifications.
Science, xi, p. 144.
Discusses the origin of carapace and plastron of *Testudinata*.
- 1888 B
Osteologische Notizen über Reptilien.
Fortsetzungen iii, iv, und v.
Zoolog. Anzeiger, xi, pp. 417-424; 592-597; 736-740.
- 1888 C
Beiträge zur Morphogenie des Carpus und Tarsus der Vertebraten. I. Theil. *Batrachia*. Jena; Verlag von Gustav Fischer, 1888.
8vo, pp. 1-88, with pls. 1-iii.
Appended is a list of books, memoirs, etc., 80 in number, which treat of the subject discussed by the author.
- 1889 A
Die systematische Stellung von *Dermochelys* Blainv.
Biolog. Centralb., ix, pp. 149-153; 180-191; 618-619.
- 1889 B
Osteologische Notizen über Reptilien.
Fortsetzung vi.
Zoolog. Anzeiger, xii, pp. 40-47.
- 1889 C
Revision meiner Mittheilungen im Zoologischer Anzeiger, mit Nachträgen.
Zoolog. Anzeiger, xii, pp. 238-243.
- 1889 D
Neue Beiträge zur Morphologie des Carpus der Säugetiere.
Anatom. Anzeiger, iv, pp. 49-51, with 3 figs. in the text.
- 1889 E
On the morphology of the ribs and the fate of the actinosts of the median fins in fishes.
Jour. Morphology, iii, pp. 463-466.

- Baur, George—Continued.** 1889 F
On the morphology of the vertebrate skull. I. The otic elements. II. The temporal arches.
Jour. Morphology, iii, pp. 467-474.
- 1889 G
Mr. E. T. Newton on *Pterosauria*.
Geol. Magazine (3), vi, pp. 171-174.
A review of Newton's paper in Phil. Trans. Roy. Soc., vol. 179, p. 308 (1888), on *Scaphognathus*.
- 1889 H
The systematic position of *Meiolania*, Owen.
Ann. and Mag. Nat. Hist. (6), iii, pp. 54-62.
- 1889 I
On "*Aulacochelys*," Lydekker, and the systematic position of *Anosteira*, Leidy, and *Pseudotrionyx*, Dollo.
Ann. and Mag. Nat. Hist. (6), iii, pp. 273-276.
- 1889 J
On *Meiolania* and some points in the osteology of the *Testudinata*; a reply to Mr. G. A. Boulenger.
Ann. and Mag. Nat. Hist. (6), iv, pp. 37-45, with pl. vi, and 4 figs. in the text.
- 1889 K
Bemerkungen über den Carpus der Proboscidi und der Ungulaten im Allgemeinen.
Morpholog. Jahrbuch, xv, pp. 478-482, with 1 fig. in the text.
- 1890 A
On the characters and systematic position of the large sea lizards, *Mosasauroidea*.
Science, xvi, p. 262.
- 1890 B
The problems of comparative osteology.
Science, xvi, pp. 281-282.
- 1890 C
A review of the charges against the palæontological department of the U. S. Geological Survey and of the defense made by Prof. O. C. Marsh.
Amer. Naturalist, xxiv, pp. 288-304.
- 1890 D
On the classification of the *Testudinata*.
Amer. Naturalist, xxiv, pp. 530-536.
- 1890 E
Professor Marsh on *Hallopus* and other dinosaurs.
Amer. Naturalist, xxiv, pp. 569-571.
Followed by short note by Prof. E. D. Cope.

- Baur, George—Continued.** 1890 F
The genera of the *Chelonidae*.
Amer. Naturalist, xxiv, pp. 486-487.
- 1891 A
The horned saurians of the Laramie formation.
Science, xvii, pp. 216-217.
- 1891 B
Notes on some little-known American fossil tortoises.
Proc. Acad. Nat. Sci. Phila., 1891, pp. 411-430.
- 1891 C
The pelvis of the *Testudinata*, with notes on the evolution of the pelvis in general.
Jour. Morphology, iv, pp. 345-359, with 13 figs. in the text.
- 1891 D
Remarks on reptiles generally called *Dinosauria*.
Amer. Naturalist, xxv, pp. 434-454.
Contains a list of 32 papers cited. A review of this paper by Dames is found in Neues Jahrb. Min., etc., 1893, I, Ref., pp. 545-547.
- 1892 A
Bemerkungen über verschiedene Arten von Schildkröten.
Zoolog. Anzeiger, xv, pp. 155-159.
- 1892 B
On the morphology of the skull in the *Mosasauroidea*.
Jour. Morphology, vii, pp. 1-22, with pls. I and II.
- 1892 C
On the taxonomy of the genus *Emys*.
Proc. Amer. Philos. Soc., xxx, pp. 40-44; 245.
In the "addition" to his note, on page 245, Dr. Baur made some modifications of his views as expressed on pp. 40-44.
- 1893 A
Notes on the classification and taxonomy of the *Testudinata*.
Proc. Amer. Philos. Soc., xxxi, pp. 210-225.
- 1893 B
Notes on the classification of the *Cryptodira*.
Amer. Naturalist, xxvii, pp. 672-675.
- 1893 C
The discovery of Miocene Amphibienians.
Amer. Naturalist, xxvii, pp. 996-999.
Describes new genus and species *Hyporhina antiqua*; new family *Hyporhinae*.
- 1894 A
Bemerkungen über die Osteologie der Schläfengegend der höheren Wirbeltiere.
Anatom. Anzeiger, x, pp. 315-330.
Includes a list of the titles of 24 papers on the subject discussed.

- Baur, George**—Continued. 1895 A
Cope on the temporal part of the skull, and on the systematic position of the *Mosasauroidea*. A reply.
Amer. Naturalist, xxix, pp. 998-1002.
- 1895 B
The fins of *Ichthyosaurus*.
Jour. Geology, iii, pp. 238-240.
A review of Prof. Rich. Owen's paper in the Trans. Geol. Soc., ser. 2, vol. v, pp. 511-514.
- 1895 C
Die Palatingegend der *Ichthyosauria*.
Anatom. Anzeiger, x, pp. 456-459, with 1 fig.
- 1895 D
Ueber die Morphologie des Unterkiefers der Reptilien.
Anatom. Anzeiger, xi, pp. 410-415, with 4 figs. Nachtrag, p. 569.
Announces the finding of a hitherto unrecognized bone in the lower jaw of reptiles, the *prementale*.
- 1895 E
Das Gebiss von *Sphenodon* (*Hatteria*) und einige Bemerkungen über Prof. Rud. Burckhardt's Arbeit über das Gebiss der *Sauropsiden*.
Anatom. Anzeiger, xi, pp. 436-439.
- 1896 A
The paroccipital of the *Squamata* and the affinities of the *Mosasauroidea* once more. A rejoinder to Prof. E. D. Cope.
Amer. Naturalist, xxx, pp. 143-147, with pl. iv.
See also pp. 327-329; 411-412.
- 1896 B
Bemerkungen über die Phylogenie der Schildkröten.
Anatom. Anzeiger, xii, pp. 561-570.
- 1896 C
The *Stegocephali*: A phylogenetic study.
Anatom. Anzeiger, xi, pp. 657-673, with 8 figs.
Contains description of the osteology of this group and the titles of 34 papers and books relating to the subject.
- 1897 A
Archegosaurus.
Amer. Naturalist, xxxi, pp. 975-980.
A review of Otto Jaekel's paper on "Die Organization von *Archegosaurus*," and a discussion of the composition of the vertebral column.
- 1897 B
Ueber die systematische Stellung der *Microsaurier*.
Anatom. Anzeiger, xiv, pp. 148-151.
- Baur, G., and Case, E. C.** 1897 A
On the morphology of the skull of the *Pelycosauria* and the origin of the mammals.
Anatom. Anzeiger, xlii, pp. 109-120, with 3 figs.
Abstract in Science (2), v, pp. 592-593.
- 1899 A
The history of the *Pelycosauria*, with a description of the genus *Dimetrodon*.
Trans. Amer. Philos. Soc. (2), xx, pp. 1-58, with pls. 1-111, with 7 figs. in the text.
Appended is a list of titles of works on the subject, 70 in number.
- Bayer, Franz.** 1885 A
Ueber die Extremitäten einer jungen *Hatteria*.
Sitzungsber. k. Akad. Wissensch., Wien, xc, 1 Abth., pp. 237-245, with 1 pl.
- Bayle, Émile de.** 1855 A
Notice sur le système dentaire de l'*Anthracotherium magnum*.
Bull. Soc. Geol. France (2), xii, pp. 986-947, with pl. xxii.
- Beard, J.** 1890 A
The interrelationships of the *Ichthyopsida*.
Anatom. Anzeiger, v, pp. 146-159, 179-188.
- Beddard, Frank E.** 1888 A
Note on the systematic position of *Monitor*.
Anatom. Anzeiger iii, pp. 204-206.
- 1897 A
Note upon intercentra in the vertebral column of birds.
Proc. Zool. Soc. London, 1897, pp. 465-472, with 4 figs. in the text.
- Belcher, Edward.** 1856 A
Notice of the discovery of *Ichthyosaurus* and other fossils in the late Arctic exploring expedition, 1852-1854.
Report Brit. Assoc. Adv. Sci., 25th meeting, Glasgow, 1855, p. 79.
Found, latitude 77° 16' N., longitude, 96° W.
- Bell, Robert.** 1898 A
On the occurrence of mammoth and mastodon remains around Hudson Bay.
Bull. Geol. Soc. America, ix, pp. 369-390, with 1 fig. in the text.
See also Science vii (n. s.), p. 80.
- Bemmelen, J. F. van.** 1896 A
Bemerkungen zur Phylogenie der Schildkröten.
Compte-rendu des séances du troisième Congrès Internat. de Zoologie, Leyden, 1895, pp. 322-335.

- Bemmelen, J. F. van**—Cont'd. 1896 B
Bemerkungen über den Schädelbau von *Dermochelys coriacea*.
Festschrift zum 70sten Geburtstage von Carl Gegenbaur, II, pp. 279-285, with pl. I.
-
- 1899 A
On reptilian affinities in the temporal region of the monotreme skull.
Proc. Fourth Internat. Congress of Zoology, Cambridge, England, pp. 162-164.
- Bensley, B. A.** 1900 A
On the inflection of the angle of the jaw in the *Marsupialia*.
Science (2), xii, pp. 558-559.
- Bensted, W. H.** 1861 A
Remains of American "*Missourium*" associated with flint implements.
The Geologist, IV, pp. 217-221. See also p. 262.
Letter containing extract from Albert Koch's "Description of the *Missourium*, or Missouri Leviathan, together with its supposed habits and Indian tradition." London, E. Fisher, 1841.
- Béraneck, Ed.** 1887 A
Ueber das Parietalauge der Reptilien.
Jenaische Zeitschrift, xxi (xiv), pp. 374-410, with pp. 374-410.
- Berthold, Arnold A.** 1850 A
Ueber das Backenzahnsystem des Narwals.
Archiv. f. Anat., Physiol. u. wissenschaft. Med., Jahrg. 1850, pp. 386-392, pl. x, figs. 7, 8.
- Bettany, G. T.** 1873 A
Oreodon remains in the Woodwardian Museum, Cambridge.
Nature, viii, pp. 309-311.
See also Nature, viii, p. 385.
-
- 1876 A
On the genus *Merycocherus* (family *Oreodontidae*), with descriptions of two new species.
Quart. Jour. Geol. Soc., xxxii, pp. 259-273, with pls. xvii, xviii.
- Beyer, Samuel Walker.** 1899 A
Geology of Story County.
Iowa Geol. Survey, ix, pp. 157-239.
Refers to the finding of a tooth of *Elephas primigenius* at Polk City.
- Beyrich, E.** 1848 A
Ueber *Xenacanthus decheni* und *Holacanthus gracilis*, zwei Fische aus der Formation des Rothliegenden in Nord Deutschland.
Bericht Verhandl. k. preuss. Akad. Wissenschaft. zu Berlin, 1848, pp. 24-33.
- Beyrich, E.**—Continued. 1850 A
Ueber einige organische Reste der Lettenkohlenbildung in Thüringen.
Zeitschr. deutsch. geol. Gesellsch., II, pp. 158-168.
-
- 1877 A
Ueber einen *Pterichthys* von Gerolstein.
Zeitschr. deutsch. geol. Gesellsch., xxix, pp. 751-756, and pl. x.
- Bibbins, Arthur.** 1895 A
Notes on the palaeontology of the Potomac formation.
Johns Hopkins University Circulars, xv, No. 121, pp. 17-20, with 2 figs.
Mentions the finding of teeth of certain dinosaurs.
- Bienz, Amié.** 1895 A
Dermatemys mavi Gray; eine osteologische Studie mit Beiträgen zur Kenntniss vom Baue der Schildkröten.
Revue suisse de zool. et Ann. Musée d'Hist. Nat. Genève, liii, pp. 61-135, with pls. II, III.
The literature of the subject is presented, p. 135.
- Billings, E.** 1863 A
On the remains of the fossil elephant in Canada.
Canadian Nat. and Geol. (1), viii, pp. 135-147, with 5 figs. in the text.
- Bischoff, Th. Ludwig Wilhelm.** 1840 A
Lepidosteiren paradoxa. Anatomisch untersucht und beschrieben.
Leipzig, 1840, 4 to, pp. 1-vi; 1-34, with pls. I-vii.
- Blackmore, Humphrey P.** 1874 A
On fossil *Arvicolidæ*.
Proc. Zool. Soc. London, 1874, pp. 460-471, with 3 figs. of the teeth.
- Blainville, H. M. Ducrotay de.** 1839 A
Recherches sur l'ancienneté des Édentés terrestres à la surface de la terre.
Comptes rendus de l'Acad. Sci. Paris, viii, pp. 65-69.
See also Ann. Sci. Nat. (2), xi, pp. 113-122.
-
- 1839 B
Mémoire sur les traces qu'ont laissées à la surface de la terre les Édentés terrestres.
Comptes rendus de l'Acad. Sci. Paris, viii, pp. 139-146.
-
- 1839 C
Recherches sur l'ancienneté des Édentés terrestres à la surface de la terre.
Ann. Sci. Naturelles (2), xi, pp. 113-122.

- Blainville, H. M. Ducrotay de—**Continued. 1864 A
 Ostéographie ou description iconographique comparée du squelette et du système dentaire des mammifères récent et fossiles pour servir de base à la zoologie et à la géologie.
 Vols. 1-iv, 4to, with pls. vols. 1-iv.
 Vol. I, *Primates, Chiroptera, Insectivora*; vol. II, *Carnivora*; vol. III, *Gravigrada, Unguligrada*; vol. IV, *Unguligrada, Bradypus*.
 This important work was issued in livraisons from 1839 to 1864. Hence, in the citations found in the catalogue of species, this year, 1864, must be regarded as arbitrary.
- Blake, Chas. C.** 1862 A
 On a fossil elephant from Texas (*E. texianus*).
 The Geologist, v, pp. 57-58, with pl. iv.
- 1862 B
Elephas texianus v. *columbi*.
 The Geologist, vi, pp. 56-60, with 1 text fig.
- 1863 A
 On the geological evidences of horses in the New World.
 The Geologist, vii, pp. 24-28.
- Blake, William P.** 1855 A
 Remains of the mammoth and mastodon in California.
 Amer. Jour. Sci. (2), xix, p. 133.
- 1864 A
 Note on fossil remains of the horse and elephant, mingled, at Mare Island, San Francisco Bay.
 Proc. California Acad. Nat. Sci., III, p. 166.
 The species not determined.
- 1867 A
 Fossil fish in Great Basin, Nevada.
 Proc. California Acad. Nat. Sci., III, pp. 306-307.
 No genera or species designated.
- 1867 B
 Notice of fossil elephants' teeth from the northwest coast.
 Proc. California Acad. Nat. Sci., III, p. 325.
 Calls attention to the finding of teeth and tusks of elephants in Alaska; also gives localities in California where such remains have been discovered.
- 1868 A
 Note upon the occurrence of fossil remains of the tapir in California.
 Amer. Jour. Sci. (2), xlv, p. 381.
- 1870 A
 On a fossil tooth from Table Mountain.
 Amer. Jour. Sci. (2), I, pp. 262-263.
- Blake, William P.—Continued.** 1898 A
 Remains of a species of *Bos* in the Quaternary of Arizona.
 Amer. Geologist, xxII, pp. 66-72.
- 1898 B
Bison latifrons and *B. arizonica*.
 Amer. Geologist, xxII, pp. 247-248.
- 1900 A
 Remains of the mammoth in Arizona.
 Amer. Geologist, xxvi, p. 257.
 Records occurrence of *Elephas primigenius* (?) at Yuma.
- Blanchard, Émile.** 1857 A
 De la détermination de quelques oiseaux fossiles et des caractères ostéologiques des Gallinacés ou Gallides.
 Annales Sci. Naturelles (4), Zool., vii, pp. 91-106, with pls. x-xII.
- 1859 A
 Recherches sur les caractères ostéologiques des oiseaux appliquées à la classification naturelle de ces animaux.
 Annales Sci. Naturelles (4), Zool., pp. 11-145.
- 1860 A
 Observations sur le système dentaire chez les oiseaux.
 Comptes rend. des séances de l'Acad. sciences, Paris, I, pp. 540-542.
- Blasius, Wilhelm.** 1884 A
 Zur Geschichte der Ueberreste von *Alca impennis* Linn.
 Jour. für Ornithologie, xxxII, pp. 58-176.
- Blatchley, W. S.** 1898 A
 The geology of Lake and Porter counties, Indiana.
 22d Ann. Report Depart. Geol. and Natural Resources [of Indiana] for 1897, pp. 25-104, with 9 figs. in the text.
 Contains notes on the finding of the mammoth and the mastodon.
- Bloch, Leopold.** 1900 A
 Schwimmblase, Knochenkapsel und Weber'scher Apparat von *Nemachilus barbatulus* Günther.
 Jenaische Zeitschr. Naturwiss., xxxiv, pp. 1-64, with pls. I, II, and 12 figs. in the text.
 Appended is a list of 75 memoirs and papers on the subject.
- Blyth, E.** 1837 A
 On the osteology of the great auk (*Alca impennis*).
 Proc. Zool. Soc. London, 1837, pp. 122-123.
- Boas, J. E. V.** 1884 A
 Bemerkungen über die Polydactylie des Pferdes.
 Morpholog. Jahrbuch, x, pp. 182-184.

- Boas, J. E. V.**—Continued. 1890 A
 Ueber den Metatarsus der Wieder-
 käuer.
 Morpholog. Jahrbuch, xvi, pp. 526-583, with
 6 figs. in the text.
- Bojanus, L. H.** 1827 A
 De uro nostrate eiusque scelecto
 mentatio.
 Nova Acta Acad. Cæs. Leop.-Car., xiii, pt.
 ii, pp. 413-478, with 5 pls.
 Refers (p. 427) *Bison latifrons* to *Urus priscus*.
- Born, G.** 1876 A
 Zum Carpus und Tarsus der Saurier.
 Morpholog. Jahrbuch, ii, pp. 1-26, with pl. i.
- 1880 A
 Nachträge zu "Carpus und Tarsus."
 Morpholog. Jahrbuch, vi, pp. 49-78, with pl. i.
 Appended is a list of authors and works
 referred to, 14 in number.
- Boule, Marcellin.** 1899 A
 Observations sur quelques équidés
 fossiles.
 Bull. Soc. Geol., France (3), xxvii, pp. 531-
 542, with 22 figs. in the text.
- Boulenger, G. A.** 1882 A
 Catalogue of the *Batrachia Gradientia*
 s. *Caudata* and *Batrachia Apoda* in the
 collection of the British Museum; sec-
 ond edition.
 Pp. i-viii; 1-127, with pls. 1-ix.
- 1882 B
 Catalogue of the *Batrachia Subientia*
 s. *Ecaudata* in the collection of the Brit-
 ish Museum; second edition.
 Pp. i-xvi; 1-503, with pls. 1-xxx, with nu-
 merous figs. in the text.
- 1884 A
 Synopsis of the families of existing
Lacertilia.
 Ann. and Mag. Nat. Hist. (5), xiv, pp. 117-
 122.
- 1885 A
 Catalogue of the lizards in the British
 Museum.
 Vol. i, pp. 436, pls. 32. Vol. ii, pp. 497, pls.
 24. London, 1885.
- 1887 A
 Catalogue of the lizards in the British
 Museum.
 Vol. iii, pp. 575; pls. 40. London, 1887.
- 1888 A
 Remarks on a note by Dr. G. Baur on
 the Pleurodiran chelonians.
 Ann. and Mag. Nat. Hist. (6), ii, pp. 352-354.
 Dr. Baur's note occurs in Zoolog. Anzeig.,
 Aug., 1888.
- Boulenger, G. A.**—Continued. 1889 A
 Catalogue of the chelonians, rhy-
 chocephalians, and crocodiles in the
 British Museum.
 London, 1889, pp. 311, 6 pls.
- 1889 B
 Remarks in reply to Dr. Baur's arti-
 cle on the systematic position of *Miola-*
nia.
 Ann. and Mag. Nat. Hist. (6), iii, pp. 138-141,
 with figs. in the text.
- 1891 A
 Notes on the osteology of *Heloderma*
horridum and *H. suspectum*, with re-
 marks on the systematic position of the
Helodermatidæ and on the vertebræ of
 the *Lacertilia*.
 Proc. Zool. Soc. London, 1891, pp. 109-118,
 with 6 woodcuts.
- 1891 B
 On British remains of *Homœosaurus*,
 with remarks on the classification of the
Rhynchocephalia.
 Proc. Zool. Soc. London, 1891, pp. 167-172,
 with 2 woodcuts.
- 1893 A
 Catalogue of the snakes in the British
 Museum (Natural History). Vol. i,
 containing the families *Typhlopidae*,
Glauconiidae, *Boidae*, *Itysiidae*, *Uropeltidae*,
Xenopeltidae, and *Coleubridæ Aglyphæ*,
 part.
 Pp. i-xliii; 1-448, with pls. i-xxviii and 26
 figs. in the text.
- 1894 A
 Catalogue of the snakes in the British
 Museum (Natural History). Vol. ii,
 containing the conclusion of the *Cole-*
ubridæ Aglyphæ.
 Pp. i-xi; 1-377, with pls. i-xx, and 26 figs. in
 the text.
- 1895 A
 Remarks on the value of certain cran-
 ial characters employed by Professor
 Cope for distinguishing lizards from
 snakes.
 Ann. and Mag. Nat. Hist. (6), xvi, pp. 366-
 367, with 1 fig. in the text.
- 1896 A
 Remarks on the dentition of snakes
 and on the evolution of the poison fangs.
 Proc. Zool. Soc. London, 1896, pp. 614-616.

Boulenger, G. A.—Continued. 1896 B
On the occurrence of Schlegel's gaviol
(*Tomistoma schlegelii*) in the Malay pen-
insula, with remarks on the atlas and
axis of the crocodilians.

Proc. Zool. Soc. London, 1896, pp. 628-633,
with 3 figs. in the text.

1896 C
Catalogue of the snakes in the British
Museum (Natural History) Vol. iii,
containing the *Colubridæ* (*Opisthoglyphæ*
and *Proteroglyphæ*), *Amblycephalidæ*,
and *Viperidæ*.

Pp. i-xiv; 1-727, with 87 figs. in the text.

Bouvé, T. T. 1859 A
Statement with regard to *Zeuglodon*
cetoides.

Proc. Nat. Hist. Soc. Boston, vi, pp. 421-422.

1859 B
Communication regarding priority of
describing fossil footprints of the Con-
necticut Valley.

Proc. Nat. Hist. Soc. Boston, vii, pp. 49-53.

Bowerbank, J. S. 1848 A
Microscopical examination on the
structure of the bones of *Pterodactylus*
giganteus and other fossil animals.

Quart. Jour. Geol. Soc. Lond., iv, pp. 2-10,
with pls. i, ii.

1851 A
On the pterodactyles of the Chalk
formation.

Proc. Zool. Soc. Lond., 1851, pt. xix, pp. 14-
20, with pl. iv.

1852 A
On the probable dimensions of the
great shark (*Carcharias megalodon*) of
the Red Crag.

Report Brit. Assoc. Adv. Sci., 21st meeting,
Ipswich, 1851, p. 54.

1852 B
On the probable dimensions of *Car-*
charodon megalodon from the Crag.

Ann. and Mag. Nat. Hist. (2), ix, pp. 120-123.

Bowers, Stephen. 1889 A
An abstract of a letter regarding the
finding of the remains of fossil verte-
brates in Ventura, Cal.

Amer. Geologist, iv, pp. 391-392.

Boyd, C. H. 1881 A
Remains of the walrus (?) in Maine.
Proc. U. S. Nat. Mus., iv, pp. 234-235.

Brainerd, —. 1852 A
Fossil fishes.

Annals of Science (Cleveland, Ohio), i, pp.
18-20, with 3 text figs.

No specific name is applied to the fishes
described. They are now known as *Gonatodus*
brainerdi (Newb.).

Branco, W. 1885 A
[Review of G. Baur on "Dinosa-
urien und Vögel" and W. Dames on
"Entgegnung an Herrn Dr. Baur"].
Neues Jahrbuch Min. Geol. u. Palæont, 1885,
ii, Referate, pp. 437-441.

1887 A
Beiträge zur Kenntniss der Gattung
Lepidotus.

Abhandl. zur geolog. Specialkarte von
Preussen und der Thüringischen Staaten vii.
Heft 4. pp. 1-85, with pls. i-vii.

1897 A
Die menschenähnlichen Zähne aus
dem Bohnerz der schwäbischen Alb.
Teil ii, Art und Ursache der Reduk-
tion des Gebisses bei Säugern.
Stuttgart, 1897, pp. 1-128.

Brandt, Alexander. 1867 A
Kurze Bemerkungen über aufrecht-
stehende Mammuthleichen.
Bull. Soc. Imp. des Naturalistes de Moscou,
xi, pt. 2, pp. 241-256.

Brandt, Ed. 1868 A
Untersuchungen über das Gebiss der
Spitzmäuse (*Sorex* Cuv.).
Bull. Soc. Imp. Nat. Moscou, xli, pt. 2, pp.
76-95, with pls. i-vi.

1870 A
Untersuchungen über das Gebiss der
Spitzmäuse (*Sorex* Cuv.).
Bull. Soc. Imp. Nat. Moscou, xliii, pt. 2, pp.
1-40.

1888 A
Vergleichend - anatomische Unter-
suchungen über die Griffelbeine (*Ossa*
calamiformia) der Wiederkäuer (*Rumi-*
nantia).
Zoolog. Anzeiger xi, pp. 542-548.

Brandt, Johann Friedrich. 1840 A
Beiträge zur Kenntniss der Natur-
geschichte der Vögel mit besonderer
Beziehung auf Skeletbau und verglei-
chende Zoologie.
Mém. Acad. Imp. Sci. St. Pétersbourg (6), Sci.
Nat., iii, pp. 81-237, with pls. i-xviii.

Brandt, Johann Friedrich—C't'd. 1844 A
Notiz über die fossilen Knochen des
Cetotheriums.

Verhandl. d. kais.-russ. mineralog. Ge-
sellsch. St. Petersburg, 1844, pp. 240-244.

1848 A

On the position in which the mam-
moth and rhinoceros have been found
in Siberia; from a letter to Baron A.
von Humboldt.

Quart. Jour. Geol. Soc., iv, pp. 9-12. (Trans-
lations and notices.)

1849 A

Symbolæ Sirenologicæ, quibus præcipue
Rhytina historia naturalis illustratur.

Mém. Acad. Imp. St. Pétersbourg (6), Sci.
Nat., v.; Zool. et Physiol., pp. 1-160, with pls.
1-v.

1849 B

De *Rhinocerotis antiquitatis* seu *pallasii*
structura externa et osteologica ob-
servaciones e reliquiis quæ in museis
Petropolitanis servantur erute.

Mém. Acad. Sci. St. Pétersbourg (6), v, pt.
ii, pp. 161-416, with pls. 1-xxiv.

1855 A

Beitrage zur nähern Kenntniß der
Säugethiere Russlands.

Mém. Acad. Imp. Sci. St. Pétersbourg (6),
vii, pt. 1-365, with pls. 1-iii and 1-xi.

Abhandlung 3 considers the question of the
specific identity of the beaver of America with
that of the Old World; also the variation of
certain bones of the beaver's skull. Abhand-
lung 4 treats of the gradual advances in the
classification of the rodents, with especial refer-
ence to the beaver. Abhandlung 5 deals with
stages of craniological development of the ro-
dents and the relationships and the classifica-
tion to be determined therefrom, with especial
reference to the beaver.

1862 A

Bemerkungen über die Zahl der
Halswirbel der Sirenien.

Mélanges Biol. Bull. Acad. Imp. Sci. St.
Pétersb., iv, pp. 125-128.

1862 B

Einige Worte über die verschiedenen
Entwicklungsstufen der Nasenbeine
der Seekühe (*Sirenia*).

Mélanges Biol. Bull. Acad. Imp. Sci. St.
Pétersb., iv, pp. 129-132.

1862 C

Bemerkungen über die Verbreitung
und Vertilgung der *Rhytina*.

Mém. Acad. Imp. Sci. St. Pétersb., iv, pp. 259-268.

Brandt, Johann Friedrich—C't'd. 1866 A
Mittheilungen über die Gestalt und
Unterscheidungsmerkmale des Mam-
muth oder Mamont (*Elephas primige-
nius*).

Mélanges Biol. Bull. Acad. Imp. Sci. St.
Pétersb., v, pp. 567-606, with 1 pl. Also "Er-
gänzungen," pp. 640-644.

1866 B

Zur Lebensgeschichte des Mammuth.
Bull. Acad. Imp. Sci. St. Pétersb., x, pp. 111-
118.

1866 C

Nochmaliger Nachweis der Vertil-
gung der nordischen oder Steller'schen
Seekuh (*Rhytina borealis*).

Bull. Soc. Imp. des Naturalistes de Moscou,
xxxix, pp. 572-597.

1867 A

Ergänzende Mittheilungen zur Erläu-
terung der ehemaligen Verbreitung und
Vertilgung der Steller'schen Seekuh.

Mélanges Biol. Bull. Acad. Imp. Sci. St.
Pétersb., vi, pp. 223-232.

Contains an account of the literature of the
subject.

1867 B

Untersuchungen über die geogra-
phische Verbreitung des Renthiers
(*Cervus tarandus* Linn.) in Bezug auf
die Würdigung der fossilen Reste der-
selben.

Verhandl. russ.-kais. mineralog. Gesell-
schaft zu St. Petersburg (2), ii, pp. 86-132.

1867 C

Die geographische Verbreitung des
Zubr, oder Bison, des Auerochsen der
Neuern (*Bos bison* seu *bonasus*).

Verhandl. russ.-kais. mineral. Gesellsch. zu
St. Petersburg (2), ii, pp. 133-185.

1867 D

Einige Schlussworte zum Nachweis
der Vertilgung der *Rhytina*.

Bull. Soc. Imp. des Naturalistes de Moscou,
xi, pt. 1, pp. 23-38.

See also pt. ii, pp. 508-543.

1868 A

Symbolæ Sirenologicæ. Fasciculi ii
et iii. Sireniorum, Pachydermatum,
Zeuglodontum et Cetaceorum ordinis
osteologia comparata, nec non Siren-
iorum generum Monographie.

Mém. Acad. Imp. Sci. St. Pétersbourg (7),
xii, No. 1, pp. 1-383, with pls. 1-ix.

Brandt, Johann Friedrich—Ct'd. 1869 A
De Dinotheriorum genere Elephantid-
orum familie adjungendo, nec non de
Elephantidorum generum craniologia
comparata.

Mém. Acad. Imp. Sci. St. Pétersbourg (7),
xiv, No. 1, pp. 1-37.

1869 B

Untersuchungen über die Gattung
der Klippschliefer (*Hyrax*. Herm.),
besonders in anatomischer und ver-
wandtschaftlicher Beziehung nebst Be-
merkungen über ihre Verbreitung und
Lebensweise.

Mém. Acad. Imp. Sci. St. Pétersbourg (7),
xiv, pp. i-vi: 1-127, with pls. i-iii.

1873 A

Untersuchungen über die fossilen und
subfossilen Cetaceen Europa's. Mit
Beiträgen von Van Beneden, Cornalia,
Gastaldi, Quenstedt und Paulson nebst
einem geologischen Anhang von Bar-
bot de Marny, G. v. Helmersen, A.
Goebel und Th. Fuchs.

Mém. Acad. Imp. Sci. St. Pétersbourg (7),
xx, No. 1, pp. i-viii: 1-372, with pls. i-xxiv.

1874 A

Ergänzungen zu den fossilen Cetaceen
Europa's.

Mém. Acad. Imp. Sci. St. Pétersbourg (7),
xxi, No. 6, pp. i-iv; 1-54, with pls. i-v.

1878 A

Tentamen synopses rhinocerotidum
viventium et fossilium.

Mém. Acad. Imp. Sci. St. Pétersbourg (7),
xxvi, No. 5, pp. i-ii: 1-66, with one plate.

Braus, Hermann.

1898 A

Über die Extremitäten der Selachier.

Verhandl. Anat. Gesellsch., 12th meeting,
Kiel, 1898, pp. 166-179, with 1 page of figs.

Brevoort, J. C.

1859 A

Remains of the American mastodon
found on Long Island, near New York.

Proc. Amer. Assoc. Adv. Sci., 12th meeting,
Baltimore, 1858, pp. 232-234.

Brewer, W. H.

1866 A

Alleged discovery of an ancient hu-
man skull in California.

Amer. Jour. Sci. (2), xlii, p. 424.

Bridge, T. W.

1877 A

The cranial osteology of *Amia calva*.

Jour. Anat. and Physiol., xi, pp. 605-622; pl.
xxiii.

Bridge, T. W.—Continued. 1889 A
Some points in the cranial anatomy
of *Polypterus*.

Proc. Birmingham Philos. Soc., vi, pp. 118-
130, with pls. i-ii.

1895 A

On certain features in the skull of
Osteoglossum formosum.

Proc. Zool. Soc. Lond., 1895, pp. 302-310, with
pl. xxii.

1896 A

The mesial fins of Ganoids and
Teleosts.

Jour. Linn. Soc. Lond., xxv, pp. 530-602,
with pls. xxi-xxiii.

1898 A

On the morphology of the skull in
the Paraguayan *Lepidosiren* and in
other Dipnoids.

Trans. Zool. Soc. Lond., xiv., pp. 325-376,
with pls. xxviii, xxix.

Bridge, T. W., and Haddon, A. C.

1889 A

Contributions to the anatomy of
fishes. I. The air bladder and Weber-
ian ossicles in the *Siluridae*.

Proc. Roy. Soc. Lond., xli, pp. 309-328.

1892 A

Contributions to the anatomy of
fishes. II. The air bladder and Weber-
ian ossicles in the Siluroid fishes.

Proc. Roy. Soc. Lond., lli, pp. 139-157.

Bridge, William J.

1879 A.

On the osteology of *Polyodon folium*.

Philos. Trans. Royal Soc. of Lond. for 1878,
clxix, pt. ii; pp. 688-738, with pls. lv-lvii.

Briggs, C.

1838 A

Bones of the mastodon.

Second Annual Report Geol. Surv. Ohio,
pp. 127-129.

Britton, N. L.

1885 A

[Remarks on finding of mastodon
remains east of the Hudson River; fol-
lowed by remarks by Prof. D. S. Mar-
tin and Dr. O. P. Hubbard.]

Trans. N. Y. Acad. Sci., v, pp. 14, 15.

Broadhead, G. C.

1870 A

Fossil horse in Missouri.

Trans. Acad. Sci. St. Louis, iii, pp. xx-xxi.
Reprinted in Amer. Naturalist, iv, p. 60.

Found in Bates County, Mo., 31 feet below
the surface; said by Eldy to belong to an ex-
tinct species.

Broadhead, G. C.—Continued. 1870 B
Bones of large mammals in drift.
Trans. Acad. Sci. St. Louis, iii, pp. xxii, xxiii.
Tooth of extinct ox found in Missouri; also in Illinois. Probably *Bos latifrons*.

1881 A

The mastodon.
Kansas City Review of Science and Industry, iv, pp. 519-530.
Mentions numerous localities in North America where the bones of the mastodon have been found.

Broili, Ferdinand. 1899 A
Ein Beitrag zur Kenntniss von *Eryops megacephalus* (Cope).
Paläontographica, xlii, pp. 61-84, with pls. viii-x.

Brongniart, Chas. 1888 A
Sur un nouveau poisson fossile du terrain houiller de Commentry (Allier), *Pleuracanthus gaudryi*.
Bull. Soc. Géol. France (3), xvi, pp. 546-560, with 1 fig. in the text.

1888 B

Sur un nouveau poisson fossile du terrain houiller de Commentry (Allier), *Pleuracanthus gaudryi*.
Le Naturaliste, x, pp. 178-180, with 1 fig. in the text.
The figure gives a restoration of this remarkable Elasmobranch.

1888 C

Études sur le terrain houiller de Commentry. Faune ichthyologique. Première partie.
Extracted from Bull. de la Société de l'Industrie minière (3), ii, livrais. 4^{me}, pp. 3-38, with 15 figs. in the text.
This paper is devoted to the description of the structure and relationships of the genus *Pleuracanthus*, and especially the species *P. gaudryi*.

Bronn, Heinrich Georg. 1837 A
Lethæa geognostica, oder Abbildungen und Beschreiben der für die Gebirgs-Formation bezeichnendsten Versteinerungen.

Vol. i, pp. i-vi; 1-644, with pls. i-xxvii of the atlas.
Vol. i contains an account of palæontology up to the period of the chalk.

1838 A

Lethæa geognostica, etc.
Vol. ii, pp. 645-1350, with pls. xxviii-xlvii of the atlas.
Vol. ii contains the palæontology from the beginning of the Cretaceous to the recent period.

Brooke, Victor. 1874 A
On Sclater's muntjac and other species of the genus *Cervulus*.
Proc. Zool. Soc. Lond., 1874, pp. 33-42, with pls. viii, ix, and 5 figs. in the text.

1878 A

On the classification of the *Cervidae*, with a synopsis of the existing species.
Proc. Zool. Soc. Lond., 1878, pp. 883-928, with pl. iv and 19 figs. in the text.

Broom, R. 1897 A
On an apparently hitherto undescribed nasal-floor bone in the hairy armadillo.
Jour. Anat. and Physiol., xxx, pp. 280-282.

Brown, Campbell. 1900 A
Ueber das genus *Hybodus* und seine systematische Stellung.
Paläontographica, xlii, pp. 149-174, with pls. xv, xvi, and 7 figs. in the text.

Browne, Montagu. 1889 A
On a fossil fish (*Chondrosteus*) from Barrow-on-Soar, hitherto recorded only from Lyme Regis.
Trans. Leicester Literary and Philos. Soc., 1889, pp. 16-36, with pls. i, ii, and 3 text figs.

Bru, D. Jean Baptiste. 1804 A
Description des os du *Megatherium* fait en montant le squelette.
Annales du Muséum, v, pp. 387-400.

Bruce, Adam T. 1883 A
Observations upon the brain casts of Tertiary mammals.
Contrib. E. M. Mus. Geol. and Arch. Princeton Coll. Bull. No. 3, pp. 36-45, with pl. vii.

Brühl, Bernhard Carl. 1847 A
Die Skelettlehre der Fische.
Vienna, 1847, 8vo., pp. 1-254, with atlas of 19 pls.

Buckland, William. 1824 A
Notice on the *Megalosaurus*, or great fossil lizard of Stonesfield.
Trans. Geol. Soc. Lond. (2), i, pp. 390-396, with pls. xi-xliv.

1831 A

On the occurrence of the remains of elephants and other quadrupeds in the cliffs of frozen mud in Eschscholtz Bay, within Bering Strait, and in other distant parts of the shores of the arctic seas.

Appendix to Beechey's Narrative of a voyage to the Pacific and Behring's Strait to co-operate with the polar expeditions; performed on H. M. S. *Blossom*, pp. 598-612, with pls. i-iii.

- Buckland, William**—Continued. 1837 A
Geology and mineralogy considered
with reference to natural theology.
In two volumes, Philadelphia, 1837.
Vol. 1 contains the text, consisting of 448
pages. Vol. II contains the pls. I-lxix, the ex-
planation of the plates, and the index.
- Buckley, S. B.** 1843 A
Notice of the discovery of a nearly
complete skeleton of the *Zygodon* of
Owen (*Basilosaurus* of Harlan).
Amer. Jour. Sci., xliv, pp. 409-412.
Reprinted in Edinburgh New Philos. Jour.,
vol. xxxv, pp. 77-79, 1843.
- 1846 A
On the *Zeuglodon* remains of Ala-
bama.
Amer. Jour. Sci. (2), II, pp. 125-129.
Abstract of this paper printed in Neues
Jahrbuch für Mineralogie, 1847, pp. 510-512.
- Büchner, Eug.** 1891 A
Die Abbildungen der nordischen
Seekuh (*Rhytina gigas* Zimm.). Mit
besonderer Berücksichtigung neu auf-
gefundener Materialien in seiner Ma-
jestät höchst Eigenen Bibliothek zu
Zarskoje Seelo.
Mém. Acad. Imp. Sci. St.-Petersbourg (7),
xxxviii, No. 7, pp. 1-24, with 1 pl.
- Burckhardt, Rudolph.** 1896 A
Das Gebiss der Sauropsiden.
Schwalbe's Morpholog. Arbeiten, v, pp. 341-
365.
Cites the literature of the subject.
- 1900 A
On *Hyperodapedon gordonii*.
Geol. Magazine (4), vii, pp. 496-492; 529-535,
with pl. xix, and 3 text figs.
- Burmeister, Hermann.** 1864 A
Noticias preliminares sobre las dife-
rentes especies de *Glyptodon* en el Museo
Público de Buenos Aires.
Anales del Museo Páb. Buenos Aires, I, pp.
71-86.
- 1865 A
Bemerkungen über die Arten der
Gattung *Glyptodon* im Museo Público
de Buenos Aires.
Archiv für Anatomie, Physiol., und wis-
sensch. Med., Jahrg., 1865, pp. 317-324, pls. vii,
viii, A.
See also Ann. and Mag. Nat. Hist. (3), xiv,
pp. 81-97.
- 1865 B
Hautpanzer bei *Mylodon*.
Archiv f. Anat. Physiol. u. wissenschaft. Med.,
Jahrg., 1865, pp. 334-336.
- Burmeister, Hermann**—Cont'd. 1865 C
Noticias preliminares sobre las dife-
rentes especies de *Glyptodon* en el Museo
Público de Buenos Aires.
Anales Mus. Páb. Buenos Aires, I, pp. 71-85.
- 1866 A
On *Glyptodon* and its allies.
Ann. and Mag. Nat. Hist. (3), xviii, pp. 299-
304.
- 1866 B
Fauna Argentina, Primera parte,
Mamíferos fósiles.
Anales Museo Páb. Buenos Aires, I, pp. 87-
232, with pls. 5-8.
- 1867 A
Fauna Argentina. Primera parte.
Mamíferos fósiles.
Anales Museo Páb., Buenos Aires, I, pp.
238-300, with pls. ix-xiv.
- 1870 A
Ueber das Becken von *Megatherium*.
Verhandl. k. k. zoolog.-bot. Gesellschaft
Wien, xx, pp. 381-388.
- 1871 A
Ueber *Hoplophorus euphractus*.
Archiv f. Anat., Physiol. u. wissenschaft.
Med., Jahrg. 1871, pp. 164-179, pl. vii A.
- 1871 B
Osteologische Notizen zur Kunde
der Panzerthiere Süd-Amerikas.
Archiv f. Anat., Physiol. u. wissenschaft.
Med., Jahrg. 1871, pp. 418-429, pl. xia; pp. 694-
715, pl. xviii.
- 1871 C
On *Sauroceles argentinus*, a new type
of *Zeuglodontidae*.
Ann. and Mag. Nat. Hist. (4), vii, pp. 51-55.
- 1872 A
Uebersicht der Glyptodonten.
Archiv für Naturgeschichte, xxxviii, I,
pp. 260-264.
- 1873 A
Studien an *Megatherium americanum*.
Archiv f. Anat., Physiol., u. wissenschaft.
Med., Jahrg. 1873, pp. 626-662, pl. xi.
- 1875 A
Die fossilen Pferde der Pampasfor-
mation, beschrieben von Dr. Herman
Burmeister, Director des Museo Pú-
blico in Buenos Aires. Eine im Auf-
trage der Provinzial-Regierung von
Buenos Aires für die internationale
Ausstellung zu Philadelphia verfasste
Monographie.
Buenos Aires, 1875. Pp. 1-viii; 1-88, with pls.
i-viii. Printed in both Spanish and German.
For supplementary volume see Burmeister,
H., 1899 A.

Burmeister, Hermann—Cont'd. 1874 A

Monografía de los Glyptodontes en el Museo Público de Buenos Aires.

Anales Mus. Páb. Buenos Aires, II, pp. 1-412, with pls. I-xiii.

In this monograph are described the genera *Panochthus*, *Hoplophorus*, *Glyptodon*, and *Dedicurus*.

This monograph was issued in parts at intervals between 1870 and 1874.

1879 A

Neue Beobachtungen an *Dedicurus giganteus*.

Abhandl. k. Akad. Wissenschaften, Berlin, 1878, pp. 1-28, pls. I, II.

1879 B

Description physique de la République Argentine d'après des observations personnelles et étrangères. Traduit de l'allemand avec le concours de E. Daireaux. Tome troisième: Animaux vertébrés. Première partie: Mammifères vivants et éteints. Avec atlas.

Buenos Ayres, 1879, pp. 1-556.

1883 A

Beschreibung des Panzers von *Eutatus seguii*.

Sitzungsber. k.-p. Akad. Wissensch., Berlin, Jahrg., 1888, pp. 1045-1068, pl. xiii.

1888 A

Bericht über *Mastodon andium*.

Sitzungsber. k.-p. Akad. Wissensch., Berlin, Jahrg., 1888, pp. 717-729.

1888 B

Ein vollständiger Schädel des Megatherium.

Sitzungsber. k.-p. Akad. Wissensch., Berlin, Jahrg., 1888, pp. 1291-1295.

1889 A

Die fossilen Pferde der Pampasformation, beschrieben von Dr. Hermann Burmeister, Director des Museo Nacional in Buenos Aires. Nachtrags-Bericht; Eine im Auftrage der National-Regierung für die Ausstellung zu Paris verfasste Monographie.

Buenos Aires, 1889, pp. I-vii; 1-65, with pls. ix-xii.

Printed in both Spanish and German. A supplement to Burmeister H., 1875 A.

Butts, Edward.

1891 A

Recently discovered footprints of the Amphibian age in the upper Coal-measure group of Kansas City, Mo.

Kansas City Scientist, v, pp. 17-19, with 4 figs. in the text.

Butts, Edward—Continued. 1891 B

Footprints of new species of amphibians in the upper Coal-measure group of Kansas City, Mo.

Kansas City Scientist, v, p. 44, with 2 figs. in the text.

"C. D."

1838 A

Bones of the mammoth.

Amer. Jour. Sci., xxxviii, p. 201.

Refers to finding of bones of mammoth in Rochester, N. Y.

Calori, Luigi.

1894 A

Sulla composizione dei condili occipitali nelle varie classi di vertebrati e sull' omologia del terzo condilo occipitale dell' uomo con il condilo occipitale unico degli uccelli e dei rettili.

Memorie della R. Accad. Sci. Inst. Bologna (5), IV, pp. 288-296, with pl.

Camper, Peter.

1788 A

Complementa varia Acad. Imper. Scient. Petropolitane communicanda, ad clar. ac celeb. Pallas.

Nova Acta Acad. Sci. Imp. Petropolitane, II, pp. 250-264, with pls. viii, ix.

This paper is divided into the following heads: Præfatio, 250-252; De cranio bisontis fossilis, 252-254; De bubalo giganteo, 254-257; De molaribus elephantorum giganteorum et eorum ossibus, 257-258; De dentibus Hippopotamorum giganteorum, 258; De alciibus giganteis Hiberniæ, 258-259; De ossibus mamonteis, 259-264.

Cannon, Geo. L., jr.

1888 A

On the Tertiary *Dinosauria* found in Denver beds.

Proc. Colorado Sci. Soc., III, pp. 140-147.

See also "Informal Notes" on pp. 190 and 215 of same volume. These "Informal Notes" were published in 1889.

1890 A

Identification of a Dinosaur from the Denver group.

Proc. Colorado Sci. Soc., III, pp. 258-264.

Refers to the finding of *Ornithomimus velox*.

Casellini, Giovanni.

1884 A

Il chelonio veronese (*Protosphargis veronensis*, Cap.), scoperto nel 1852 nel cretaceo superiore presso Sant' Anna di Alfaedo in Valpolicella.

Memorie R. Accad. Lincei (3), xviii, pp. 291-320, with pls. I-vi.

Carpenter, W. M.

1838 A

Interesting fossils found in Louisiana.

Amer. Jour. Sci., xxxiv, pp. 201-203, with 3 figs. of teeth of horse.

Carpenter, W. M.—Cont'd. 1839 A
Miscellaneous notices in Opelousas,
Attakapas, etc.

Amer. Jour. Sci., xxxv, pp. 344-346.

1846 A

Remarks on some fossil bones recently brought to New Orleans from Tennessee and from Texas.

Amer. Jour. Sci. (2), 1, pp. 244-250, with 4 figs. in the text.

Carte, Alex., and Macalister, Alex.

1869 A

On the anatomy of *Balanoptera rostratus*.

Philosoph. Trans. Roy. Soc. Lond., clviii, pp. 201-261, with pls. iv-vii.

Carus, C. G. 1847 A

Resultate geologischer, anatomischer, und zoologischer Untersuchungen über das unter dem Namen *Hydrarchos* von Dr. A. C. Koch nach Europa gebrachte und in Dresden aufgestellte grosse fossile Skelett, in Verbindung mit H. B. Geinitz, A. F. Günther, und H. G. L. Reichenbach herausgegeben.

Pp. 16, and 8 pls.; folio, Dresden and Leipzig, 1847.

1849 A

Das Kopfskelet des *Zeuglodon hydrarchos*. Zum erstenmale nach einem vollständigen Exemplare beschrieben und abgebildet.

Nova Acta Acad. Cæs. Leop.-Carol. Nat. Cur., xxii, pp. 373-390, with pls. xxxix A and xxxix B.

Cary, Austin. 1892 A

A study in foot structure.

Jour. Morphology, vii, pp. 305-316, with pl. xviii, and 7 figs. in the text.

Case, E. C. 1897 A

Foramina perforating the cranial region of a Permian reptile and on a cast of its brain cavity.

Amer. Jour. Sci., (4) iii, pp. 321-326, with 4 figs. in the text.

A description of *Dimetrodon incisivus*.

1897 B

On the osteology and relationships of *Protostega*.

Jour. Morphology, xiv, pp. 21-56, with pls. iv-vi.

1898 A

The significance of certain changes in the temporal region of primitive *Reptilia*.

Amer. Naturalist, xxxii, pp. 69-74, with 2 figs. in the text.

Case, E. C.—Continued. 1898 B

The development and geological relations of the vertebrates. Part I, The fishes; Pt. II, Amphibia; Pt. III, Reptilia.

Jour. Geology, vi, pp. 393-416 (Fishes); pp. 500-523 (Amphibia and Reptilia).

1899 A

A redescription of *Pariotichus incisivus* Cope.

Zoolog. Bulletin, ii, pp. 231-245, with 7 text-figs.

1900 A

The vertebrates from the Permian bone bed of Vermilion County, Illinois.

Jour. Geology, viii, pp. 698-729, with pls. i-v.

The species of this paper were described by Cope, but few of them were figured. The original descriptions are reproduced and figures of many of them are given by Case. Several bones are figured without being identified. The species originally belonged to Gurley and are now owned by the University of Chicago.

— See also **Baur and Case**, and **Williston and Case**.

Chadbourne, P. A. 1871 A

The discovery of the skull of a musk-ox in Utah.

Amer. Naturalist, v, pp. 315-316.

Extract from Salt Lake Tribune, May 16, 1871.

Chaloner, A. D. 1843 A

Fossil bones of mastodon and elephant.

Proc. Acad. Nat. Sci. Phila., 1, pp. 321-322.

Chamberlin, Thomas C. 1900 A

On the habitat of the early vertebrates.

Jour. Geology, viii, pp. 400-412.

Champley, Robert. 1864 A

The great auk.

Ann. and Mag. Nat. Hist. (3), xiv, pp. 235-236.

Contains a list of the specimens of this bird and of its skeletons and eggs in the various museums of the world.

See also note by Dr. J. E. Gray, on p. 319; by Dr. P. L. Sclater, on p. 320; and on p. 393, by A. von Pelzeln, all of the same volume.

Chapman, E. J. 1858 A

Mastodon remains. Morpeth, Canada West.

Canadian Jour. Industry, Science, and Art (2), iii, pp. 356-357.

Announces finding of remains of *M. ohioensis* (?) at place named above.

Charlesworth, Edward. 1837 A

Notice of the teeth of *Carcharias megalodon* in the Red Crag of Suffolk.

Mag. Natural History (2), i, pp. 225-227, with text fig.

Charlesworth, Edward—C't'd. 1846 A

On the occurrence of the *Mosasaurus* in the Essex chalk, and on the discovery of flint within the pulp cavities of the teeth.

Report Brit. Assoc. Adv. Sci., 15th meeting, Cambridge, 1845, p. 60.

Denies propriety of establishing *Ictiodon*.

Charlton, O. C. 1890 A

On the occurrence of mammoth remains in Franklin County, Kans.

Trans. Kansas Acad. Sci., xii, p. 74.

Cheney, T. A. 1872 A

The Chautauqua mastodon.

Amer. Naturalist, vi, pp. 178-179.

Christie, W. J. 1856 A

Extract from a letter regarding the finding of mastodon bones near Shell River, British America.

Proc. Nat. Hist. Soc. Boston, v, pp. 265-266.

Clark, J. W. 1871 A

On the skeleton of a Narwhal (*Monodon monoceros*).

Proc. Zool. Soc. Lond., 1871, pp. 42-58, with 2 figs.

Clark, W. B. 1895 A

Contributions to the Eocene fauna of the middle Atlantic slope.

Johns Hopkins University circulars, xv, pp. 3-6.

A list of the species found, among which are 10 vertebrates.

1897 A

Eocene deposits of middle Atlantic slope.

Bull. U. S. Geol. Surv. No. 141, pp. 1-vii; 1-167, pls. 1-xi.

Descriptions of vertebrates, pp. 58-63, pls. vii, viii.

Clarke, John M. 1885 A

On the higher Devonian faunas of Ontario County, N. Y.

Bull. U. S. Geol. Surv., No. 16, pp. 1-80, pls. i-iii.

In this Bulletin are described the four new species of fishes *Dinichthys newberryi*, *Palaoniscus devonicus*, *Acanthodes ? pristis*, and *Pristacanthus vetustus*.

1894 A

New or rare species of fossils from the horizons of the Livonia salt shaft.

Report State Geol. New York for 1893, ii, pp. 162-168, with pl. I and 3 figs. in the text.

Description and figures of *Coccoosteus ? halimodeus*.

1897 A

The stratigraphic and faunal relations of the Oneonta sandstones and

Clarke, John M.—Continued.

shales, the Ithaca and Portage groups in central New York.

Fifteenth Ann. Rep. State Geologist, for the year 1895, vol. i, pp. 31-81.

This paper appeared also in the 49th Ann. Report of the N. Y. State Museum.

Names *Dinichthys newberryi*, *Acanthodes pristis*, and *Palaoniscus devonicus* as occurring in the Portage group.

Clarke, S. F. 1891 A

Embryology of the alligator.

Jour. Morphology, v, pp. 181-206, with pls. ix-xiii.

Claudius, —. 1867 A

Das Gehörorgan von *Rhytina stelleri*.

Mém. Acad. Imp. Sci. St. Pétersburg (7), xi, No. 5, pp. 1-14, with pls. i-iii.

Claypole, E. W. 1883 A

Note on a large fish plate from the Upper Chemung? of northern Pennsylvania.

Proc. Amer. Philos. Soc., xx, pp. 664-666, with fig.

Describes and figures *Pterichthys rugosus*.

1884 A

Preliminary note on some fossil fishes recently discovered in the Silurian rocks of North America.

Amer. Naturalist, xviii, pp. 1222-1226.

New genus and species *Palaaspis americana* and *P. bitruncata*.

1884 B

On some remains of fish from the Upper Silurian rocks of Pennsylvania.

The Geolog. Magazine (3), i, pp. 519-521.

1885 A

On some fish remains recently discovered in the Silurian rocks of Pennsylvania.

Proc. Amer. Assoc. Adv. Sci., 33d meeting, Phila., 1884, pp. 424-428.

Abstract of paper presented.

1885 B

On *Ctenacanthus* and *Gyracanthus* from the Chemung of Pennsylvania.

Proc. Amer. Assoc. Adv. Sci., 33d meeting, Phila., 1884, pp. 489-490. Abstract.

1885 C

On some remains of fish from the Upper Silurian rocks of Pennsylvania.

Report Brit. Assoc. Adv. Sci., 54th meeting, Montreal, 1884, pp. 733-734.

1885 D

On the recent discovery of *Pteraspidian* fish in the Upper Silurian rocks of North America.

Quart. Jour. Geol. Soc., xii, pp. 48-64, with 8 figs. in the text.

Claypole, E. W.—Continued. 1888 A
A letter concerning the collection of
fossil fishes made at Berea, Ohio, by
Dr. Wm. Clark.

Amer. Geologist, ii, pp. 62-64.

1890 A

Palaeontological notes from Indian-
apolis (A. A. A. S.), *Pterichthys*, *Cas-
toroides*, etc.

Amer. Geologist, vi, pp. 256-260.

1891 A

Megalonyx in Holmes County, Ohio.

Amer. Geologist, vii, pp. 122-132; 149-153.

1892 A

A new gigantic Placoderm from Ohio.

Amer. Geologist, x, pp. 1-4, with 1 fig. in the
text.

Describes *Gorgonichthys clarki*.

1892 B

Dentition of *Titanichthys* and its
allies.

Amer. Geologist, x, p. 193.

Abstract of paper read before the Geological
Society of America, 1892.

1892 C

The head of *Dinichthys*.

Amer. Geologist, x, pp. 199-207, with pls.
vi-viii.

1892 D

On the structure of the American
Pteraspidian, *Palaeaspis* (Claypole),
with remarks on the family.

Quart. Jour. Geol. Soc., xlviii, pp. 542-561,
with 8 figs. in the text.

1893 A

A new Coccoostean—*Coccoosteus cuyahogae*.

Amer. Geologist, xi, pp. 167-171, with 2 figs.
in the text.

1893 B

The Cladodont sharks of the Cleve-
land shale.

Amer. Geologist, xi, pp. 325-331, with pls.
vii, viii.

1893 C

Fins of *Palaeaspis americana*.

Amer. Naturalist, xxvii, pp. 375-376.

Extract from paper in Quarterly Jour.
Geol. Soc., 1892.

1893 D

The upper Devonian fishes of Ohio.

The Geol. Magazine (3), x, pp. 443-448, with
2 figs. in the text.

1893 E

The three great fossil Placoderms of
Ohio.

Amer. Geologist, xii, pp. 89-99.

A popular description of *Dinichthys*, *Titan-
ichthys*, and *Gorgonichthys*.

Claypole, E. W.—Continued. 1893 F

On three new species of *Dinichthys*.

Amer. Geologist, xii, pp. 276-279, with pl. xii,
and 1 fig. in the text.

Descriptions of *D. hucolai*, *D. clarki*, and *D.
gracilis*.

1893 G

The fossil fishes of Ohio.

Report Geol. Surv. of Ohio, vii, pp. 602-619,
with pls. xxxviii-xliii.

1894 A

Cladodus ? magnificus, a new Sela-
chian.

Amer. Geologist, xiv, pp. 137-140, with pl. v.

1894 B

On a new Placoderm, *Brontichthys
clarki*, from the Cleveland shale.

Amer. Geologist, xiv, pp. 379-380, with pl. xii.

1894 C

Structure of the bone of *Dinichthys*.

Proc. Amer. Micros. Soc., xv, pp. 189-191,
with 5 figs. in the text.

1895 A

On a new specimen of *Cladodus
clarki*.

Amer. Geologist, xv, pp. 1-7, pls. i, ii.

1895 B

The Shaw mastodons.

Amer. Geologist, xv, pp. 325-326.

Notes the discovery of three individuals of
the mastodon at Cincinnati, Ohio. Two of
these possessed two lower incisors.

1895 C

Recent contributions to knowledge
of the Cladodont sharks.

Amer. Geologist, xv, pp. 363-368.

1895 D

The Cladodonts of the upper Dev-
onian of Ohio.

The Geol. Magazine (4), ii, p. 473.

See also Report Brit. Assoc. Adv. Sci., 1895,
p. 694.

1895 E

The great Devonian Placoderms of
Ohio.

The Geol. Magazine (4), ii, pp. 473-474.

See also Report Brit. Assoc. Adv. Sci., 1895,
p. 696.

1895 F

Actinophorous clarki Newb.

Amer. Geologist, xvi, pp. 20-25, pl. ii.

1895 G

The oldest vertebrate fossil.

Nature, lii, p. 55.

This distinction is awarded to *Onchus clintoni*.

1895 H

On the structure of the teeth of the
Devonian Cladodont sharks.

Proc. Amer. Micros. Soc., xvi, pp. 191-196,
with pls. i-iv, containing 7 figs.

- Claypole, E. W.**—Continued. 1896 A
A new *Titanichthys*.
Amer. Geologist, xvii, pp. 166-169, with pl. x.
Description and figs. of portions of a new
species, *T. brevis*.
- 1896 B
The ancestry of the Upper Devonian
Placoderms of Ohio.
Amer. Geologist, xvii, pp. 349-360.
- 1896 C
Dinichthys prentiss-clarki.
Amer. Geologist, xviii, pp. 199-201, with pl.
vii.
- 1896 D
On the teeth of *Mazodus*.
Trans. Amer. Micros. Soc., xviii, pp. 146-148,
with pl. of 2 figs.
- 1896 E
On the structure of some Paleozoic
spines from Ohio.
Trans. Amer. Micros. Soc., xviii, pp. 151-154,
with pl. of 2 figs.
- 1897 A
Man and the *Megalonyx*.
Amer. Geologist, xx, pp. 52-54.
- Clift, William.** 1835 A
Some account of the remains of the
Megatherium sent to England from Bue-
nos Ayres, by Woodbine Parish, jr.,
esq., F. G. S., F. R. S.
Trans. Geol. Soc. Lond. (2), iii, pp. 437-450.
- Cocchi, Igino.** 1864 A
Monografia dei *Pharyngodopilidae*,
nuova famiglia di pesci labroidi. Studi
paleontologica.
Firenze, 1864, pp. 1-88, pls. 1a-va.
- Coles, Henry.** 1853 A
On the skin of the *Ichthyosaurus*.
Quart. Jour. Geol. Soc. Lond., ix, pp. 79-82,
with pl. v.
- Collett, John.** 1882 A
Recent extinction of the mastodon.
Amer. Naturalist, xvi, pp. 74-75.
Taken from Geological Report of Indiana
for 1880.
- Collinge, Walter E.** 1893 A
The morphology of the sensory
canal system in some fossil fishes.
Proc. Birmingham Philos. Soc., ix, pt. 1.
Reprint, pp. 1-14, with pls. 1, ii.
- 1895 A
The presence of scales in the integu-
ment of *Polyodon folium*.
Jour. Anat. and Physiol., xxix, pp. 486-487,
with 2 figs. in the text.
- Conrad, T. A.** 1840 A
On the geognostic position of the
Zeuglodon, or *Basilosaurus* of Harlan.
Amer. Jour. Sci. (1), xxxviii, pp. 381-382.
- 1869 A
Notes on American fossiliferous
strata.
Amer. Jour. Sci. (2), xlvii, pp. 356-364.
- 1871 A
On some points connected with the
Cretaceous and Tertiary of North Car-
olina.
Amer. Jour. Sci. (3), i, pp. 468-469.
- Conybeare, William D.** 1824 A
Additional notices on the fossil
genera *Ichthyosaurus* and *Plesiosaurus*.
Trans. Geol. Soc. Lond. (2), i, pp. 108-123,
with pls. xv-xxii.
- Cook, Geo. H.** 1885 A
Annual report of the State geologist
for 1885.
Pp. 1-228.
On page 96 there is a list of 8 species of fos-
sil tracks which have been found in New
Jersey.
- Cooper, J. Hamilton.** 1843 A
On fossil bones found in digging the
New Brunswick canal in Georgia.
Proc. Geol. Soc., Lond., iv, pp. 33-34.
- Cooper, William.** 1824 A
On the remains of the *Megatherium*
recently discovered in Georgia.
Annals Lyc. Nat. Hist. of N. Y., i, pp. 114-
124, pl. viii.
- 1828 A
Further discovery of fossil bones in
Georgia, and remarks on their identity
with those of the *Megatherium* of Para-
guay.
Annals Lyc. Nat. Hist. of N. Y., ii, pp. 267-270.
Abstract in Edinb. New Philos. Jour. 1828, v,
pp. 327-329.
- 1831 A
Notices of Big Bone Lick.
Monthly Amer. Jour. of Geol. and Nat. Sci.,
i, pp. 158-174; 206-217.
- 1833 A
A report on some fossil bones of the
Megalonyx from Virginia, with a notice
of such parts of the skeleton of this ani-
mal as have been hitherto discovered,
and remarks on the affinities which they
indicate.
Annals Lyc. Nat. Hist. N. Y., iii, pp. 166-173.

- Cooper, William, Smith, J. A., and DeKay, J. E.** 1831 A
Report of Messrs. Cooper, J. A. Smith, and DeKay to the Lyceum of Natural History on a collection of fossil bones disinterred at Big Bone Lick, Kentucky, in September, 1830, and recently brought to New York.
Reprinted in Edinburgh New Philos. Journal, xi, pp. 352-355, 1831, Amer. Jour. Sci., xx, pp. 370-372, and Monthly Amer. Jour. Geol., i, pp. 43-44.
- Cope, E. D.** 1864 A
On the characters of the higher groups of *Reptilia Squamata*, and especially of the *Diploglossa*.
Proc. Acad. Nat. Sci. Phila., 1864, pp. 224-231.
- 1865 A
On *Amphibamus grandiceps*, a new batrachian from the Coal-measures.
Proc. Acad. Nat. Sci. Phila., 1865, pp. 134-137.
- 1866 A
On the discovery of the remains of a gigantic Dinosaur in the Cretaceous of New Jersey.
Proc. Acad. Nat. Sci. Phila., 1866, pp. 275-279.
- 1866 B
On the discovery of the remains of a gigantic Dinosaur in the Cretaceous of New Jersey.
Amer. Jour. Sci. (2), xlii, p. 425. Abstract from Proc. Phila. Acad., 1866, pp. 275-279.
Same as preceding.
- 1866 C
Supplement to the description of vertebrates.
Geol. Surv. Illinois, A. H. Worthen, director, ii, pp. 135-141, pl. xxxii, and 1 woodcut.
This paper is supplementary to "Newberry and Worthen, 1866 A."
- 1866 D
Observations on extinct vertebrates of the Mesozoic red sandstone.
Proc. Acad. Nat. Sci. Phila., 1866, pp. 249-250.
Remarks on *Rhytidodon*, *Cleptesaurus*, and *Mastodonsaurus durus*.
- 1866 E
[Remarks on *Laelaps*.]
Proc. Acad. Nat. Sci. Phila., pp. 316-317.
- 1866 F
On the structures and distribution of the genera of the aciferous *Anura*.
Jour. Acad. Nat. Sci. Phila. (2), vi, pp. 67-112, pl. 25.
- Cope, E. D.**—Continued. 1866 G
Communication in regard to the Mesozoic sandstone of Pennsylvania.
Proc. Acad. Nat. Sci. Phila., 1866, p. 290.
Notes the finding of *Pterodactylus longispinus*, afterwards described as *Rhabdopeltis longispinus*.
- 1866 H
Third contribution to the history of the *Balenidae* and *Delphinidae*.
Proc. Acad. Nat. Sci. Phila., xviii, pp. 293-300.
In this paper Harlan's *Delphinus calvertensis* is assigned to *Pontoporia*.
- 1867 A
On *Eucastes*, a genus of extinct *Che-loniidae*.
Proc. Acad. Nat. Sci. Phila., pp. 39-42.
- 1867 B
[Descriptions of *Eschrichtius cephalus*, *Rhabdosteus latiradix*, *Squalodon atlanticus*, and *S. mento*.]
Proc. Acad. Nat. Sci. Phila., 1867, pp. 131-132.
- 1867 C
An addition to the vertebrate fauna of the Miocene period, with a synopsis of the extinct *Cetacea* of the United States.
Proc. Acad. Nat. Sci. Phila., 1867, pp. 138-156.
Species collected in Charles County, Md.
- 1867 D
[Account of extinct reptiles which approach birds.]
Proc. Acad. Nat. Sci. Phila., 1867, pp. 234-235.
- 1867 E
The fossil reptiles of New Jersey.
Amer. Naturalist, i, pp. 23-30.
- 1868 A
On a new large Enaliosaur.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 92-93.
Describes *Elasmosaurus platyrus*.
- 1868 B
On the origin of genera.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 242-300.
- 1868 C
On the genus *Laelaps*.
Amer. Jour. Sci. (2), xlii, pp. 415-417.
- 1868 D
Note on the fossil reptiles near Fort Wallace.
Page 68 of John L. Le Conte's "Notes on the geology of the survey for the extension of the Union Pacific Railway, E. D., from the Smoky Hill River, Kansas, to the Rio Grande," Philadelphia, Feb., 1868.
Contains description of *Elasmosaurus platyrus* and mention of *Discoosaurus carinatus* Cope.

- Cope, E. D.—Continued.** 1868 E
[Description of new genus and species of *Cheloniidae*, *Osteopygis emarginatus*.]
Proc. Acad. Nat. Sci. Phila., 1868, p. 147.
- 1868 F
[Remarks on *Palaephis littoralis* Cope.]
Proc. Acad. Nat. Sci. Phila., 1868, p. 147.
- 1868 G
[Remarks on extinct *Cetacea* from the Miocene of Maryland.]
Proc. Acad. Nat. Sci. Phila., 1868, pp. 159, 160.
- 1868 H
[Remarks on *Clidastes iguanavus*, *Necroportheus validus*, and *Elasmosaurus*.]
Proc. Acad. Nat. Sci. Phila., 1868, p. 181.
- 1868 I
Second contribution to the history of the *Vertebrata* of the Miocene period of the United States.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 184-194.
- 1868 J
Synopsis of the extinct *Batrachia* of North America.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 206-221.
- 1868 K
On some Cretaceous *Reptilia*.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 233-242.
- 1868 L
On the origin of genera.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 242-300.
- 1868 M
[Observations on some extinct reptiles.]
Proc. Acad. Nat. Sci. Phila., 1868, p. 313.
- 1869 A
On the reptilian orders *Pythonomorpha* and *Streptosauria*.
Proc. Boston Soc. Nat. Hist., xii, pp. 250-266.
- 1869 B
Synopsis of the extinct *Reptilia* found in the Mesozoic and Tertiary strata of New Jersey.
Appendix B of Geology of New Jersey, George H. Cook, State geologist, Newark, 1868, pp. 733-742.
The letter of the State geologist to the governor (page v.) shows that this volume could not have been issued before 1869.
- 1869 C
[Remarks on fossil reptiles.]
Proc. Amer. Philos. Soc., xi, p. 16.

- Cope, E. D.—Continued.** 1869 D
[Remarks on fossil reptiles, *Clidastes propython*, *Polycotylus latipinnis*, *Ornitholarus immanis*.]
Proc. Amer. Philos. Soc., xi, p. 117.
Reprint in Amer. Jour. Sci. (2), xlviii, p. 278.
Noticed in The Geolog. Magazine, vol. vi, (1869), p. 476, and vol. vii (1870), p. 427.
- 1869 E
Synopsis of the extinct *Mammalia* of the cave formations in the United States, with observations on some *Myriopoda* found in and near the same, and on some extinct mammals of the caves of Anguilla, W. I., and of other localities.
Proc. Amer. Philos. Soc., xi, pp. 171-192, with pls. iii-v.
Noticed in Jour. de Zoologie, i, pp. 168-169.
- 1869 F
Second addition to the history of the fishes of the Cretaceous of the United States.
Proc. Amer. Philos. Soc., xi, pp. 240-244.
- 1869 G
Third contribution to the fauna of the Miocene period of the United States.
Proc. Acad. Nat. Sci. Phila., 1869, pp. 6-12.
- 1869 H
[Remarks on *Holops brevispinus*, *Ornitholarus immanis*, and *Macrosaurus proriger*.]
Proc. Acad. Nat. Sci. Phila., 1869, p. 123.
- 1869 I
[Remarks on *Eschrichtius polyporus*, *Hypsibema crassicauda*, *Hadrosaurus tripos*, and *Polydectes biturgidus*.]
Proc. Acad. Nat. Sci. Phila., 1869, p. 192.
- 1869 J
Remarks on fossils from limestone caves in Virginia.
Proc. Acad. Nat. Sci. Phila., 1869, p. 3.
- 1869 K
The fossil reptiles of New Jersey.
Amer. Naturalist, iii, pp. 84-91, pl. ii; continued from Amer. Naturalist, i, p. 30.
- 1869 L
Description of some extinct fishes previously unknown.
Proc. Boston Soc. Nat. Hist., xii, pp. 310-317.

Cope, E. D.—Continued.

1869 M

Synopsis of the extinct *Batrachia*,
Reptilia, and *Aves* of North America.

Trans. Amer. Phil. Soc., xiv, pp. i-viii, 1-252,
with pls. f-xiv, and 56 woodcuts in the text.

A synopsis appeared in Jour. de Zoologie, i,
pp. 182-187, 381-387, 508-510, with pls. xi. Of
this memoir only pp. 1-104 were issued in the
year 1868; pp. 105-284 appeared in April, 1870,
while the remainder was issued in December,
1870. The imprint of the volume is December,
1871.

1869 N

Synopsis of the extinct *Mammalia* of
New Jersey.

Appendix C of Geology of New Jersey, George
H. Cook, State geologist, Newark, 1868, pp. 739-
742.

See remark under Cope, 1869, B.

1869 O

On two new genera of extinct *Cetacea*.

Canadian Naturalist, iv, pp. 320-321.

Only *Anoplonaassa forcipata* is described in
this extract from a Boston newspaper.

1870 A

On the *Megadactylus polyzelus* of
Hitchcock.

Amer. Jour. Sci. (2), xlix, pp. 390-392.

Extract from Cope's "Extinct Reptilia and
Aves." Reprinted in Ann. and Mag. Nat. Hist.
(4), vol. v, pp. 454-455.

1870 B

On *Elasmosaurus platyrus*.

Amer. Jour. Sci. (2), i, pp. 140-141.

1870 C

Additional note on *Elasmosaurus*.

Amer. Jour. Sci. (2), i, pp. 268-269.

1870 D

On some *Reptilia* of the Cretaceous
formation of the United States.

Proc. Amer. Philos. Soc., xi, pp. 271-274.

1870 E

Verbal communication [at meeting of
the Amer. Philos. Soc., Feb. 18, 1870.]

Proc. Amer. Philos. Soc., xi, p. 274.

1870 F

Fourth contribution to the history of
the fauna of the Miocene and Eocene
periods of the United States.

Proc. Amer. Philos. Soc., xi, pp. 285-294.

1870 G

On *Adocus*, a genus of Cretaceous
Emydidae.

Proc. Amer. Philos. Soc., xi, pp. 295-298.

Cope, E. D.—Continued.

1870 H

Observations on the fishes of the
Tertiary shales of Green River, Wyo-
ming Territory.

Proc. Amer. Philos. Soc., xi, pp. 380-384.

1870 I

Observations on the *Reptilia* of the
Triassic formations of the Atlantic
regions of the United States.

Proc. Amer. Philos. Soc., xi, pp. 444-446.

Reprinted in Ann. Mag. Nat. Hist., 1870, vi,
pp. 498-500.

1870 J

[Statements communicated regarding
Liodon perlatus.]

Proc. Amer. Philos. Soc., xi, pp. 497-498.

1870 K

[Remarks on *Adocus syntheticus* and
Laelaps aquilunguis.]

Proc. Amer. Philos. Soc., xi, p. 515.

1870 L

On the *Sauroidontidae*.

Proc. Amer. Philos. Soc., xi, pp. 529-538.

Abstract of in Amer. Naturalist, iv, p. 695.

1870 M

On the fishes of a fresh-water Tertiary
in Idaho, discovered by Capt. Clarence
King.

Proc. Amer. Philos. Soc., xi, pp. 538-547.

1870 N

On the *Adocidae*.

Proc. Amer. Philos. Soc., xi, pp. 547-553.

1870 O

On some species of *Pythonomorpha*
from the Cretaceous beds of Kansas and
New Mexico.

Proc. Amer. Philos. Soc., xi, pp. 574-584.

1870 P

Note on *Saurocephalus*, Harlan.

Proc. Amer. Philos. Soc., xi, p. 608.

Abstract in Amer. Jour. Sci. (3), i, p. 386,
1871.

1870 Q

[Observations on fossil reptiles from
Kansas.]

Proc. Acad. Nat. Sci. Phila., 1870, p. 132.

1870 R

Discovery of a huge whale in North
Carolina.

Amer. Naturalist, iv, p. 128.

1870 S

Reptilia of the Triassic formations of
the United States.

Amer. Naturalist, iv, pp. 562-563.

Cope, E. D.—Continued.

1870 T

Review of G. A. Maack's "Die bis jetzt bekannten Schildkröten u. d. bei Kelheim u. Hannover neu aufgefundenen ältesten Arten derselben."
 Amer. Jour. Science (2) 1. pp. 136-139.

This paper contains a list of species of American turtles known at that date.

1871 A

[Remarks on new fossil reptiles from western Kansas.]

Proc. Acad. Nat. Sci. Phila., 1871, pp. 297-298.

Names are given of certain fossils, but no adequate descriptions.

1871 B

On the homologies of some of the cranial bones of the *Reptilia*, and on the systematic arrangement of the class.

Proc. Amer. Assoc. Adv. Science, 19th meeting, Troy, 1870, pp. 194-247, with 24 figs. in text.

Notice of in Ann. and Mag. Nat. Hist. (4), vol. vii, pp. 67-68.

1871 C

On the extinct tortoises of the Cretaceous of New Jersey.

Amer. Naturalist, v, pp. 562-564.

1871 D

On the fossil reptiles and fishes of the Cretaceous rocks of Kansas.

U. S. Geol. Surv. of Wyoming and portions of contiguous Territories, 2d [4th] annual report, F. V. Hayden, U. S. Geologist, Washington, 1871, pp. 385-424.

1871 E

On the fishes of the Tertiary shales of Green River, Wyoming Territory.

U. S. Geol. Surv. of Wyoming and portions of contiguous Territories for 1870, 2d [4th] annual report, F. V. Hayden, U. S. Geologist, pp. 425-431.

1871 F

The Port Kennedy bone cavern.

Proc. Amer. Philos. Soc., xi, p. 15.

1871 G

Supplement to the "Synopsis of the extinct *Batrachia* and *Reptilia* of North America."

Proc. Amer. Philos. Soc., xii, pp. 41-52.

1871 H

On the occurrence of fossil *Cobitidæ* in Idaho.

Proc. Amer. Philos. Soc., xii, p. 55.

Discusses position of the genus *Diatichus*, which was afterwards put among the *Cyprinidæ*.

Cope, E. D.—Continued.

1871 I

Preliminary report on the *Vertebrata* discovered in the Port Kennedy bone cave.

Proc. Amer. Philos. Soc., xii, pp. 73-102, with 20 figs. in the text.

1871 J

Note of some Cretaceous *Vertebrata* in the State Agricultural College of Kansas, U. S. A.

Proc. Amer. Philos. Soc., xii, pp. 168-170.

1871 K

[Letter to Professor Lesley giving an account of a journey in the valley of the Smoky Hill River, in Kansas.]

Proc. Amer. Philos. Soc., xii, pp. 174-176.

1871 L

Observations on the extinct *Batrachian* fauna of the Carboniferous of Linton, Ohio.

Proc. Amer. Philos. Soc., xii, p. 177.

1871 M

Observations on the distribution of certain extinct *Vertebrata* in North Carolina.

Proc. Amer. Philos. Soc., xii, pp. 210-216.

1871 N

Catalogue of the *Pythonomorpha* found in the Cretaceous strata of Kansas.

Proc. Amer. Philos. Soc., xii, pp. 264-287.

1871 O

[Observations on *Sauroplevra remex* and (*Ectocephalus amphiuminus*.)]

Proc. Acad. Nat. Sci. Phila., 1871, p. 53.

1871 P

Cave mammals in Pennsylvania.

Amer. Naturalist, v, p. 58.

Refers to the finding of bones in Port Kennedy cave.

1872 A

Bathmodon, a new genus of fossil mammals.

Amer. Jour. Sci. (3), iii, p. 224.

Relative to paper read before Amer. Philos. Soc. (Cope, E. D., 1872 J.), correcting date.

1872 B

Synopsis of the species of *Chelydrinæ*.

Proc. Acad. Nat. Sci. Phila., 1872, pp. 22-29.

1872 C

Observations on the systematic relations of the fishes.

Proc. Amer. Assoc. Adv. Science, 20th meeting, Indianapolis, 1871, pp. 317-343.

See also Amer. Naturalist, v, pp. 579-593; Ann. and Mag. Nat. Hist. (4), ix, pp. 155-168; Trans. Amer. Philos. Soc., xiv, pp. 445-461.

Cope, E. D.—Continued. 1872 D
On the extinct tortoises of the Cretaceous of New Jersey.

Proc. Amer. Assoc. Adv. Science, 20th meeting, Indianapolis, 1871, pp. 344-346.

Abstract of Cope, 1871 D.

1872 E
Third account of new *Vertebrata* from the Bridger Eocene of Wyoming Territory.

Proc. Amer. Philos. Soc., xii, pp. 469-472 (1873).

Issued Aug. 7, 1872, as Pal. Bull. No. 3; reprinted in Proc. Amer. Philos. Soc., Jan., 1873.

1872 F
On the geology and paleontology of the Cretaceous strata of Kansas.

U. S. Geol. Surv. of Montana and portions of adjacent Territories; 5th annual report, F. V. Hayden, U. S. Geologist, Washington, D. C., 1872, pp. 318-349.

1872 G
On the vertebrate fossils of the Wasatch strata.

U. S. Geol. Surv. of Montana and portions of adjacent Territories; 5th annual report, F. V. Hayden, U. S. Geologist, Washington, 1872; pp. 350-358.

1872 H
On a new Testudinate from the chalk of Kansas.

Proc. Amer. Philos. Soc., xii, pp. 306-310.

Describes *Cynocercus incistrus*.

1872 I
On the families of fishes of the Cretaceous formation in Kansas.

Proc. Amer. Philos. Soc., xii, pp. 327-357.

1872 J
On *Bathmodon*, an extinct genus of ungulates.

Proc. Amer. Philos. Soc., vii, pp. 417-420.

1872 K
On two new Ornithosaurians from Kansas.

Proc. Amer. Philos. Soc., xii, pp. 420-422.

Ornithochirus umbrosus and *O. harpyia* are described.

1872 L
A description of the genus *Protostege*, a form of extinct Testudinata.

Proc. Amer. Philos. Soc., xii, pp. 422-433.

1872 M
Description of some new *Vertebrata* from the Bridger group of the Eocene.

Proc. Amer. Philos. Soc., xii, pp. 460-465.

Issued as Pal. Bull. No. 1, July 29, 1872; reprinted in Proc. Amer. Phil. Soc., January, 1873.

Cope, E. D.—Continued. 1872 N
Second account of new *Vertebrata* from the Bridger Eocene.

Proc. Amer. Philos. Soc., xii, pp. 466-468.

This forms Pal. Bull. No. 2, and was issued Aug. 3, 1872; reprinted in Proc. Amer. Philos. Soc., 1873, January (See Cope, 1873 V.).

1872 O
On a new genus of *Pleurodira* from the Eocene of Wyoming.

Proc. Amer. Philos. Soc., xii, pp. 472-477.

Besides the new genus of Pleurodiran turtle *Notomorpha*, with 3 species, Cope here describes the perissodactyle *Notharctus vasacciensis*.

1872 P
On the Tertiary coal and fossils of Osino, Nevada.

Proc. Amer. Philos. Soc., xii, pp. 478-481.

1872 Q
On the existence of *Dinosauria* in the transition beds of Wyoming.

Proc. Amer. Philos. Soc., xii, pp. 481-488 (1873).

This forms Pal. Bull. No. 4, published Aug. 12, 1872; reprinted in Amer. Philos. Soc. Proc., Jan., 1873.

1872 R
Notices of new *Vertebrata* from the upper waters of Bitter Creek, Wyoming Territory.

Proc. Amer. Philos. Soc., xii, pp. 483-486 (1873).

This forms Pal. Bull. No. 6, published Aug. 20, 1872; reprinted Jan., 1873, in Proc. Amer. Philos. Soc. (See Cope, 1873 V.).

1872 S
Second notice of extinct vertebrates from Bitter Creek, Wyoming.

Proc. Amer. Philos. Soc., xii, pp. 487-488 (1873).

Published in part Aug. 22, 1872, as Pal. Bull. No. 7; reprinted in Proc. Amer. Philos. Soc., Jan., 1873. (See Cope, 1873 V.) The description of *Anaptomorphus semulus* forms Pal. Bull. No. 8, Oct., 1872, *Ad*e Cope, 1873 V.

1872 T
On the dentition of *Metalophodon*.

Proc. Amer. Philos. Soc., xii, pp. 542-545.

1872 U
On a new vertebrate genus from the northern part of the Tertiary basin of Green River.

Proc. Amer. Philos. Soc., xii, p. 554.

Issued also as Pal. Bull. No. 8, Oct. 12, 1872.

Describes *Anaptomorphus semulus*.

1872 V
Descriptions of new extinct reptiles from the upper Green River Eocene basin, Wyoming.

Proc. Amer. Philos. Soc., xii, pp. 554-555 (1873).

This constitutes Pal. Bull. No. 9, published Oct., 1872; reprinted Jan., 1873, *Ad*e Cope, 1873 V.

- Cope, E. D.—Continued.** 1872 W
Telegram describing extinct proboscidi-
cians from Wyoming.
Paleontological Bull. No. 5.
With conjectural corrections of specific
names. Published Aug. 1, 1872, *Adæ Cope*, 1873
V. Reprinted, with corrections, in Proc. Amer.
Philos. Soc., xli, p. 580. (Cope, E. D., 1872 II.)
- 1872 X
[Description of *Holops pneumaticus*.
Proc. Acad. Nat. Sci. Phila., 1872, pp. 11-12.]
- 1872 Y
List of the *Reptilia* of the Eocene
formation of New Jersey.
Proc. Acad. Nat. Sci. Phila., 1872, pp. 14-18.
- 1872 Z
On an extinct whale from California.
Proc. Acad. Nat. Sci. Phila., 1872, pp. 29-30.
Describes *Eschrichtius davidsoni*.
- 1872 AA
[Description of *Bathmodon radians*.]
Proc. Acad. Nat. Sci. Phila., 1872, p. 38.
Reprinted in Amer. Jour. Sci. (3), iv, pp.
238-239; Amer. Naturalist, vi, p. 438.
- 1872 BB
[Description of *Plesiosaurus gulo* and
of the turtle afterwards named *Toxochelys latiremis*.]
Proc. Acad. Nat. Sci. Phila., 1872, pp. 127-129.
- 1872 CC
[Remarks on discoveries recently
made by Prof. O. C. Marsh.]
Proc. Acad. Nat. Sci. Phila., 1872, pp. 140-141.
- 1872 DD
Remarks on *Mastodon* from New
Mexico.
Proc. Acad. Nat. Sci. Phila., 1872, p. 142.
- 1872 EE
Remarks on geology of Wyoming,
and on saurodont fishes from Kansas.
Proc. Acad. Nat. Sci. Phila., 1872, pp. 279-281.
- 1872 FF
The geological age of the coal of
Wyoming.
Amer. Naturalist, vi, pp. 660-671.
- 1872 GG
Food of *Plesiosaurus*.
Amer. Naturalist, vi, p. 439.
- 1872 HH
The Eocene genus *Synoplotherium*.
Amer. Naturalist, vi, p. 695.
- 1872 II
Notice of new proboscidi-
cians from the
Eocene of southern Wyoming.
Proc. Amer. Philos. Soc., xli, p. 580 (1873).
Followed by a note of the secretary, correct-
ing errors in the original, which was issued as
Pal. Bull. No. 5. (Cope, E. D., 1872 W.)

- Cope, E. D.—Continued** 1872 JJ
Carboniferous reptiles of Ohio.
Amer. Naturalist, vi, p. 46.
- 1872 KK
The proboscidi-
cians of the American
Eocene.
Amer. Naturalist, vi, pp. 773-774.
The group of which *Eobasiliscus cornutus* is
type.
- 1872 LL
The armed *Metalophodon*.
Amer. Naturalist, vi, pp. 774-776.
Describes *M. armatus*.
- 1872 MM
The fish-beds of Osino, Nevada.
Amer. Naturalist, vi, pp. 775-776.
Refers to *Amyzon mentale* and *Trichophanes
hians*.
- 1873 A
Note on the Cretaceous of Wyoming.
Amer. Jour. Sci. (3), v, pp. 230-231.
Slip from the "Proc. Phil. Soc., Philadel-
phia," published on Feb. 7. Followed by re-
marks by "Eds." The original not found in
the Proc. Amer. Philos. Soc., Phila.
- 1873 B
On the new perissodactyles from the
Bridger Eocene.
Proc. Amer. Philos. Soc., xlii, pp. 35-36.
Also issued as Pal. Bull. No. 11.
- 1873 C
On some new extinct *Mammalia* from
the Tertiary of the Plains.
Paleont. Bulletin No. 14, pp. 1-2.
Describes *Elurodon mustelinus* and *Acerothe-
rium megalodus*.
- 1873 D
Fourth notice of extinct *Vertebrata*
from the Bridger and the Green River
Tertiaries.
Paleont. Bulletin No. 17, pp. 1-4. "Oct. 25,
1873." (Cope.)
- 1873 E
On the extinct *Vertebrata* of the
Eocene of Wyoming, observed by the
expedition of 1872, with notes on the
geology.
U. S. Geol. Surv. Terr. for 1872, 6th annual
report, F. V. Hayden, U. S. Geologist, Washing-
ton, D. C., 1873, pp. 645-649, pls. 1-vi.
- 1873 F
On the short-footed *Ungulata* of the
Eocene of Wyoming.
Proc. Amer. Philos. Soc., xlii, pp. 33-74.
For extract see Jour. de Zoologie, li, 1873, pp.
168-184, pl. vii, followed by remarks by Paul
Gervais.
- 1873 G
On the flat-clawed *Carnivora* of the
Eocene of Wyoming.
Proc. Amer. Philos. Soc., xlii, pp. 190-200.

- Cope, E. D.—Continued.** 1873 H
On the osteology of the extinct tapir-
roid *Hyrachys*.
Proc. Am. Philos. Soc., xiii, pp. 212-224.
- 1873 I
[Remarks on additional specimens
of *Toxochelys latiremis*.]
Proc. Acad. Nat. Sci. Phila., 1873, p. 10.
- 1873 J
Observations on the structure and
systematic position of the genus *Basil-*
eus Cope.
Proc. Acad. Nat. Sci. Phila., 1873, pp. 10-12.
- 1873 K
[Remarks on *Eobasilidæ* and *Bath-*
modontidæ.]
Proc. Acad. Nat. Sci. Phila., 1873, p. 102.
- 1873 L
[Remarks on a fossil skull of *Sus*
scrophæ.]
Proc. Acad. Nat. Sci. Phila., 1873, p. 207.
- 1873 M
Some extinct turtles from the Eocene
strata of Wyoming.
Proc. Acad. Nat. Sci. Phila., 1873, pp. 277-279.
Descriptions of *Trionyx heteroptytus* and
Platomenus thomasi.
- 1873 N
On two new species of *Sauroidontidæ*.
Proc. Acad. Nat. Sci. Phila., 1873, pp. 337-339.
Describes *Porthicus lestrio* and *P. gladius* and
the new genus *Daptinus*.
- 1873 O
On some new *Batrachia* and fishes
from the Coal-measures of Linton, Ohio.
Proc. Acad. Nat. Sci. Phila., 1873, pp. 340-343.
- 1873 P
On the types of molar teeth.
Proc. Acad. Nat. Sci. Phila., 1873, p. 371.
- 1873 Q
[Remarks on fishes from the Coal-
measures of Linton, Ohio.]
Proc. Acad. Nat. Sci. Phila., 1873, pp. 417-419.
- 1873 R
[On *Menotherium lemurinum*, *Hypiso-*
dus minimus, *Hypertragulus calcaratus*,
H. tricostratus, *Protohippus*, and *Pro-*
camelus occidentalis.]
Proc. Acad. Nat. Sci., Phila., 1873, pp. 419-420.
- 1873 S
Second notice of extinct *Vertebrata*
from the Tertiary of the Plains.
Palæont. Bull. No. 15, pp. 1-6.
"Issued Aug. 20, 1873." (Cope.)
- Cope, E. D.—Continued.** 1873 T
Third notice of extinct *Vertebrata*
from the Tertiary of the Plains.
Palæont. Bull. No. 16, pp. 1-8.
"Published Aug. 20, 1873." (Cope.)
- 1873 U
On some Eocene mammals obtained
by Hayden's Geological Survey of 1872.
Palæont. Bull. No. 12, pp. 1-6.
Issued privately March 8, 1873. Not re-
printed.
- 1873 V
Palæontological Bulletin. Prelimi-
nary.
Pp. 1-2. Gives titles and dates of publica-
tion of Palæontological Bulletins Nos. 1-13.
- 1873 W
The gigantic mammals of the genus
Eobasilæus.
Amer. Naturalist, vii, pp. 157-160.
- 1873 X
On some of Professor Marsh's criti-
cisms.
Amer. Naturalist, vii, pp. 290-299.
Forms, with slight changes, Palæont. Bull.
No. 13.
- 1873 Y
Proboscidiæ of the American
Eocene. Correction.
Amer. Naturalist, vii, p. 49.
Makes a correction regarding the teeth of
Eobasilæus cornutus.
- 1873 Z
The *Eobasilæus* again.
Amer. Naturalist, vii, p. 181.
- 1873 AA
On Professor Marsh's criticisms.
Amer. Naturalist, vii. Appendix to July
number, p. 1.
This communication contains only eight
lines.
- 1873 BB
On the tusk of *Loxolophodon cornutus*.
Amer. Naturalist, vii, p. 315.
- 1873 CC
Synopsis of new *Vertebrata* from the
Tertiary of Colorado, obtained during
the summer of 1873.
Pp. 1-19. Washington, Government Print-
ing Office, Oct., 1873.
On the title page this paper is said to be
extracted from the 7th Annual Report of the
U. S. Geol. Surv. Terr., but it does not appear
in that volume.

Cope, E. D.—Continued. 1873 DD
Some remarkable and gigantic animals.

The Independent, New York, Oct. 30, 1873.
Contains reports of the meeting of the Amer. Assoc. Adv. Sci. at Portland, Me. *Miobasileus*, *Symborodon*, and *Eobasileus* are referred to. *Symborodon acer*, *S. bucco*, *S. alistrostria*, *S. heloceros* are more or less fully described.

1874 A
On some extinct types of horned perissodactyles.

Proc. Amer. Assoc. Adv. Science, 22d meeting, Portland, 1873, pp. 108-109.

Reprinted in Ann. and Mag. Nat. Hist. (4), xiii, pp. 405-406.

Describes *Symborodon torvus*, *Miobasileus ophryas*, *Symborodon acer*, and *S. heloceros*.

1874 B
Report on the vertebrate palaeontology of Colorado.

Annual Report Geol. and Geog. Surv. Territories for 1873, F. V. Hayden, U. S. Geologist, Washington, D. C., 1874, pp. 427-533, pls. i-viii.

Chapter I. Introduction, pp. 429-430. II. the Cretaceous period, pp. 431-456. III. The Eocene period, pp. 456-461. IV. The Miocene period, pp. 461-518. V. The Loup Fork epoch, pp. 518-532.

An abstract of this paper appeared in Jour. de Zoologie, iv, 1875, pp. 354-359, with a list of the species described.

1874 C
Review of the *Vertebrata* of the Cretaceous period found west of the Mississippi River. Sec. I. On the mutual relations of the Cretaceous and Tertiary formations of the West. Sec. II. List of species of *Vertebrata* from the Cretaceous formations of the West.

Bull. U. S. Geol. and Geog. Surv. of the Terrs., i, No. 2, 1874, pp. 3-48.

1874 D
Supplementary notices of fishes from the fresh-water Tertiaries of the Rocky Mountains.

Bull. U. S. Geol. and Geog. Surv. of the Terrs., i, No. 2, 1874, pp. 49-51.

1874 E
Abstract of remarks at the meeting of the Amer. Philos. Soc., Jan. 16, 1874. Proc. Amer. Philos. Soc., xiv, p. 110.
On *Poebrotherium*, etc.

1874 F
[Observations on age of lignite and other formations of the West.]
Proc. Acad. Nat. Sci. Phila., 1874, pp. 12-13.

Cope, E. D.—Continued. 1874 G
Remarks on *Symborodon*, *Titanotherium*, and *Eobasileus*.

Proc. Acad. Nat. Sci. Phila., 1874, pp. 89-90.

1874 H
Synopsis of result of work in connection with Hayden's U. S. Geological Survey during 1873.

Proc. Acad. Nat. Sci. Phila., 1874, pp. 116-117.

1874 I
Notes on the Santa Fé marls and some of the contained vertebrate fossils.

Proc. Acad. Nat. Sci. Phila., 1874, pp. 147-152. Also in Palaeont. Bull. No. 18.

1874 J
On a new mastodon and rodent.

Proc. Acad. Nat. Sci. Phila., 1874, pp. 221-223.

1874 K
On the characters of *Symborodon*.

Proc. Acad. Nat. Sci. Phila., 1874, pp. 224-225.

1874 L
Supplement to the extinct *Batrachia* and *Reptilia* of North America. I. Catalogue of the air-breathing *Vertebrata* from the Coal-measures of Linton, Ohio.

Trans. Amer. Philos. Soc., xv, pp. 261-278.

Also issued separately with pp. 1-18.

1874 M
On the homologies and origin of the types of molar teeth of *Mammalia educabilia*.

Jour. Acad. Nat. Sci. Phila. (2), viii, pp. 71-89, with 29 figs. in the text.

1874 N
The succession of life in North America.

Ann. and Mag. Nat. Hist. (4), xiii, pp. 326-331.

Reprinted from The Penn Monthly, v, 1874, pp. 138-145.

1874 O
Report upon vertebrate fossils discovered in New Mexico, with descriptions of new species.

Extract from Appendix FF of the Annual Report of the Chief of Engineers, 1874. Washington, Gov. Print. Office, Nov. 28, 1874, pp. 1-18.

In order to make the pagination of the *separata* correspond to that of the Engineer's Report add 588.

This paper also forms "Appendix FF₂" (pp. 115-130) of "Appendix FF" of the Annual Report of the Chief of Engineers for 1874.

- Cope, E. D.—Continued.** 1874 P
Report on the stratigraphy and Pliocene vertebrate palæontology of northern Colorado.
Bull. U. S. Geol. and Geog. Survey Terr., 1, Bull. No. 1, ser. 1, pp. 9-28.
Includes also "Supplement. Additions to the synopsis of new *Vertebrata* from the Territory of Colorado, 1873," pp. 22-28.
- 1874 Q
[Remarks on Professor Marsh's *Brontotherium ingens*.]
Proc. Amer. Philos. Soc., xiv, p. 2.
B. ingens is regarded as a synonym of *Synborodon trigonoceras*.
- 1874 R
On Dr. Leidy's "Correction."
Proc. Acad. Nat. Sci. Phila., pp. 224-225.
- 1874 S
[Description of a species of *Ctenodus*.]
Proc. Acad. Nat. Sci. Phila., 1874, pp. 91-92.
This species of *Ctenodus* is without name, but it was afterwards called *C. ohioensis*.
- 1874 T
[Remarks on skulls of *Eobasilus galeatus* and of a fossil walrus.]
Proc. Amer. Philos. Soc., xiv, pp. 17-18.
The skull of *Eobasilus* was from Wyoming; that of the fossil walrus from Accomac Harbor, Va.
- 1875 A
Note on the genus *Calamodon*.
Amer. Jour. Sci. (3), ix, p. 228.
- 1875 B
The geology of New Mexico.
Amer. Jour. Sci. (3), x, pp. 152-158.
- 1875 C
Systematic catalogue of *Vertebrata* of the Eocene of New Mexico, collected in 1874.
Report to the Engineer Department, U. S. Army, in charge of Lieut. Geo. M. Wheeler. Washington, April 17, 1875, pp. 5-37.
- 1875 D
Synopsis of the extinct *Batrachia* from the Coal-measures.
Report of the Geol. Survey of Ohio, Palæontology, II, 1875, pp. 350-411; pls. xxvi-xlv.
- 1875 E
The *Vertebrata* of the Cretaceous formations of the West.
Report U. S. Geol. Surv. of the Territories, II, pp. 1-308; pls. I-IV, and 10 wood cuts. Washington, D. C., 1875.
- Cope, E. D.—Continued.** 1875 F
Report on the geology of that part of northwestern New Mexico examined during the field season of 1874, by E. D. Cope, palæontologist and geologist.
Appendix LL of Annual Report of the Chief of Engineers in annual report upon the geographical explorations and surveys west of the 100th meridian, etc., by Geo. M. Wheeler, 1st Lieut., Engineers. Washington, D. C., 1875. Pp. 61-116; pls. (illustrating palæontology) II, v, vi.
The pagination here given is that of the *separata*. To make this correspond with that of the complete report 920 must be added.
Same as Cope, 1875 U, with different pagination.
- 1875 G
On the fishes of the Tertiary shales of the South Park.
Bull. U. S. Geol. and Geog. Surv. Territories, 2d series, No. 1, 1875, pp. 8-5.
- 1875 H
Synopsis of the *Vertebrata* of the Miocene of Cumberland County, New Jersey.
Proc. Amer. Philos. Soc., xiv, pp. 361-364.
- 1875 I
On the transition beds of the Saskatchewan district.
Proc. Acad. Nat. Sci. Phila., 1875, pp. 9-10.
- 1875 J
The extinct *Batrachia* of Ohio.
Proc. Acad. Nat. Sci. Phila., 1875, p. 16.
- 1875 K
On Green-sand *Vertebrata*.
Proc. Acad. Nat. Sci. Phila., 1875, p. 19.
- 1875 L
On the homologies of the sectorial tooth of *Carnivora*.
Proc. Acad. Nat. Sci. Phila., 1875, pp. 20-23.
- 1875 M
The feet of *Bathmodon*.
Proc. Acad. Nat. Sci. Phila., 1875, p. 73.
- 1875 N
On fossil lemurs and dogs.
Proc. Acad. Nat. Sci. Phila., 1875, pp. 255-256.
- 1875 O
On the antelope deer of the Santa Fé marls.
Proc. Acad. Nat. Sci. Phila., 1875, p. 257.
- 1875 P
On some new fossil *Ungulata*.
Proc. Acad. Nat. Sci. Phila., 1875, pp. 258-261.
From Palæontological Bulletin No. 19.

Cope, E. D.—Continued. 1875 Q
The phylogeny of the camels.
Proc. Acad. Nat. Sci. Phila., 1875, pp. 261-262.

— 1875 R
The geology of New Mexico.
Proc. Acad. Nat. Sci. Phila. 1875, pp. 263-267.

— 1875 S
On an extinct vulturine bird.
Proc. Acad. Nat. Sci. Phila., 1875, p. 271.
Refers *Cathartes umbrosus* to *Vultur*.

— 1875 T
On fossil remains of reptilia and fishes from Illinois.
Proc. Acad. Nat. Sci. Phila., 1875, pp. 404-411.
Reprinted in Ann. and Mag. Nat. Hist. (4), xvii, 178-184.
According to Prof. Cope (Cope, 1888 BB, p. 286) this paper was not issued until 1876.

— 1875 U
Report on the geology of that part of northwestern New Mexico examined during the field season of 1874, by E. D. Cope, paleontologist and geologist.
From annual report upon the geographical explorations and surveys west of the 100th meridian, in California, etc., by Geo. M. Wheeler; being Appendix LL of the Annual Report of the Chief of Engineers, pp. 981-1017; pls. II, V, and VI. Pp. 61-97 of separate report LL. Same as Cope, 1875 F, with different pagination.

— 1875 V
Synopsis of the *Vertebrata* whose remains have been preserved in the formations of North Carolina.
Report Geol. Surv. of North Carolina, I, by W. C. Kerr, Appendix B, pp. 29-52, with pls. v-viii.

— 1875 W
Report on the vertebrate fossils from the Fort Union group of Milk River.
British North Amer. Boundary Commission's Report on the geology and resources of the region in the vicinity of the forty-ninth parallel, from the Lake of the Woods to the Rocky Mountains, with lists of plants and animals collected and notes on the fossils; by George Mercer Dawson, geologist and botanist to the commission. Montreal, 1875. Pp. 333-337.

— 1875 X
Check-list of North American *Batrachia* and *Reptilia*, with a systematic list of the higher groups and an essay on geographical distribution; based on the specimens in the U. S. National Museum.
Bull. No. 1, U. S. Nat. Mus., pp. 1-95.

Cope, E. D.—Continued. 1876 A
On the supposed *Carnivora* of the Eocene of the Rocky Mountains.
Palæont. Bull. No. 20, pp. 1-4.
It is stated in this bulletin that it was published Dec. 22, 1875.

— 1876 B
On a gigantic bird from the Eocene of New Mexico.
Proc. Acad. Nat. Sci. Phila., 1876, pp. 10-11.
Reprinted in Amer. Jour. Sci. (3), xli, pp. 306-307, and in Jour. de Zoologie., v, 1876, pp. 264-267.
Describes *Diatryma gigantea*.

— 1876 C
On the *Teniodonta*, a new group of Eocene *Mammalia*.
Proc. Acad. Nat. Sci. Phila., 1876, p. 39.

— 1876 D
On the geologic age of the vertebrate fauna of the Eocene of New Mexico.
Proc. Acad. Nat. Sci. Phila., 1876, pp. 63-66.
Forms Palæontological Bulletin No. 21.
A translation of this paper appeared in Jour. de Zoologie, v, 1876, pp. 307-311.

— 1876 E
On some supposed lemurine forms of the Eocene period.
Proc. Acad. Nat. Sci. Phila., 1876, pp. 88-89.

— 1876 F
On a new genus of fossil fishes.
Proc. Acad. Nat. Sci. Phila., 1876, p. 113.

— 1876 G
On a new genus of *Camelidae*.
Proc. Acad. Nat. Sci. Phila., 1876, pp. 144-147.
Describes *Protolabis*.

— 1876 H
Descriptions of some vertebrate remains from the Fort Union beds of Montana.
Proc. Acad. Nat. Sci. Phila., 1876, pp. 248-261.
Issued also as Pal. Bull. No. 22, pp. 1-14.

— 1876 I
On some extinct reptiles and *Batrachia* from the Judith River and Fox Hills beds of Montana.
Proc. Acad. Nat. Sci. Phila., 1876, pp. 340-359.
Issued also as Pal. Bull. No. 23, pp. 1-20.

— 1877 A
A continuation of researches among the *Batrachia* of the Coal-measures of Ohio.
Proc. Amer. Philos. Soc., xvi, pp. 573-578.
Issued as part of Pal. Bull. No. 24.

- Cope, E. D.—Continued.** 1877 B
On a dinosaurian from the Trias of Utah.
Proc. Amer. Philos. Soc., xvi, pp. 579-584.
Issued as part of Pal. Bull. No. 24.
Describes *Dystrophus viemala*.
- 1877 C
On a new proboscidian.
Proc. Amer. Philos. Soc., xvi, pp. 584-585.
Also as part of Pal. Bull. No. 24.
Describes *Cenobasilus tremontigerus*. This genus and species were withdrawn in Cope, E. D., 1899 J., p. 207.
- 1877 D
On some new or little known reptiles and fishes of the Cretaceous No. 3 of Kansas.
Proc. Amer. Philos. Soc., xvii, pp. 176-181.
Issued also as part of Pal. Bull. No. 26.
- 1877 E
Descriptions of extinct *Vertebrata* from the Permian and Triassic formations of the United States.
Proc. Amer. Philos. Soc., xvii, pp. 182-193.
Not published until March 1, 1878. Issued as part of Pal. Bull. No. 26. This was "printed Nov. 20, 1877."
- 1877 F
On reptilian remains from the Dakota beds of Colorado.
Proc. Amer. Philos. Soc., xvii, pp. 193-196.
- 1877 G
Report on the geology of the region of the Judith River, Montana, and on vertebrate fossils obtained on or near the Missouri River.
Bull. U. S. Geol. and Geog. Surv., iii, article xix, pp. 565-597; pls. 30-34.
- 1877 H
On a carnivorous dinosaurian from the Dakota beds of Colorado.
Bull. U. S. Geol. and Geog. Surv., iii, article xxxiii, pp. 805-806.
Describes *Laelaps trihedrodon*.
- 1877 I
A contribution to the knowledge of the ichthyological fauna of the Green River shales.
Bull. U. S. Geol. and Geog. Surv., iii, article xxxiv, pp. 807-819.
- 1877 J
On the genus *Erisichne*.
Bull. U. S. Geol. and Geog. Surv., iii, article xxxv, pp. 821-823.
- Cope, E. D.—Continued.** 1877 K
Report upon the extinct *Vertebrata* obtained in New Mexico by parties of the expedition of 1874. Chapter xi. Fossils of the Mesozoic periods and Geology of Mesozoic and Tertiary beds. xii. Fossils of the Eocene period. xiii. Fossils of the Loup Fork Epoch.
Geographical surveys west of the one hundredth meridian, First Lieut. Geo. M. Wheeler, Corps of Engineers, U. S. Army, in charge. Vol. iv, Paleontology, Washington, 1877. Pp. 1-370, pls. xxii-xxxiii.
- 1877 L
On the brain of *Coryphodon*.
Proc. Amer. Philos. Soc., xvi, pp. 616-620; pls. 1-11.
- 1877 M
On the brain of *Procamelus occidentalis*.
Proc. Amer. Philos. Soc., xvii, pp. 49-52; pl. 1.
- 1877 N
On the *Vertebrata* of the bone bed in eastern Illinois.
Proc. Amer. Philos. Soc., xvii, pp. 52-63.
- 1877 O
Synopsis of the cold-blooded *Vertebrata* procured by Prof. James Orton during his exploration of Peru in 1876-77.
Proc. Amer. Philos. Soc., xvii, pp. 33-49.
Contains on p. 41 definitions of the subclasses of fishes, including the new class *Hypomala*.
- 1877 P
On a new species of *Adocidæ* from the Tertiary of Georgia.
Proc. Amer. Philos. Soc., xvii, pp. 82-84.
Issued as part of Paleontological Bulletin No. 25.
Describes *Amphimys oxyternum*.
- 1877 Q
On a gigantic saurian from the Dakota epoch of Colorado.
Pal. Bull. No. 26, pp. 5-10.
Describes *Camarasaurus supremus*.
- 1877 R
On *Amphicelias*, a genus of saurians from the Dakota epoch of Colorado.
Pal. Bull. No. 27, pp. 2-3, with date Dec. 10, 1877.
- 1877 S
The lowest mammalian brain.
Amer. Naturalist, xi, pp. 312-313.
Describes brain of *Coryphodon*.

- Cope, E. D.—Continued.** 1877 T
The discovery of *Laelaps* in Montana.
Amer. Naturalist, xi, p. 311.
- 1877 U
The sea serpents of the Cretaceous period.
Amer. Naturalist, xi, p. 311.
Brief reference to the discovery of *Elasmosaurus orientalis*.
- 1877 V
The dentition of the herbivorous *Dinosauria*.
Amer. Naturalist, xi, pp. 311, 312.
- 1877 W
The largest known saurian.
Amer. Naturalist, xi, p. 629.
Brief description of "*Cammosaurus*" *supremus*.
- 1877 X
Remains of a huge saurian in Pennsylvania.
Amer. Naturalist, xi, p. 629.
Refers to *Paleosclonus appalachianus*, described in Proc. Amer. Phil. Soc., 1877, xvii, p. 182 (Cope, 1877 E).
- 1877 Y
New vertebrate fossils.
Amer. Naturalist, xi, p. 629.
- 1877 Z
New fossil fishes from Wyoming.
Amer. Naturalist, xi, p. 570.
A list, without descriptions, of fossil fishes found in Wyoming.
- 1878 A
On the classification of the extinct fishes of the lower types.
Proc. Amer. Assoc. Adv. Sci., 26th meeting, Nashville, 1877, pp. 292-300.
- 1878 B
Descriptions of extinct *Batrachia* and *Reptilia* from the Permian formation of Texas.
Proc. Amer. Philos. Soc., xvii, pp. 505-530.
Also part of Pal. Bull. No. 29.
- 1878 C
Descriptions of new *Vertebrata* from the upper Tertiary formations of the West.
Proc. Amer. Philos. Soc., xvii, pp. 219-231.
Issued also as part of Pal. Bull. No. 28.
- 1878 D
On some saurians found in the Triassic of Pennsylvania, by C. M. Wheatley.
Proc. Amer. Philos. Soc., xvii, pp. 231-232.
Issued also as part of Pal. Bull. No. 28.
- Cope, E. D.—Continued.** 1878 E
The saurians of the Dakota epoch.
Amer. Naturalist, xii, pp. 56-57.
Refers to discovery of *Camarasaurus* and *Amphicoelias*.
- 1878 F
Descriptions of fishes from the Cretaceous and Tertiary deposits west of the Mississippi River.
Bull. U. S. Geol. and Geog. Surv. of the Territories, 1878, vol. iv, pp. 67-77.
- 1878 G
Professor Owen on the *Pythonomorphs*.
Bull. U. S. Geol. and Geog. Surv. Territories, 1878, iv, pp. 299-311.
- 1878 H
Descriptions of new extinct *Vertebrata* from the upper Tertiary and Dakota formations.
Bull. U. S. Geol. and Geog. Surv. Territories, 1878, iv, pp. 379-396.
- 1878 I
On the *Vertebrata* of the Dakota epoch of Colorado.
Proc. Amer. Philos. Soc., xvii, pp. 233-247.
Issued as Pal. Bull. No. 28.
- 1878 J
Clepsydrops in Texas.
Amer. Naturalist, xii, p. 57.
A brief note.
- 1878 K
The affinities of the *Dinosauria*.
Amer. Naturalist, xii, pp. 57-58.
A brief note on the views of Professor Owen on the *Dinosauria*.
- 1878 L
New artiodactyles of the upper Tertiary.
Amer. Naturalist, xii, p. 58.
- 1878 M
On the saurians recently discovered in the Dakota beds of Colorado.
Amer. Naturalist, xii, pp. 71-85, with 17 woodcuts in the text.
- 1878 N
A new *Mastodon*.
Amer. Naturalist, xii, p. 128.
Brief notice of *M. campester*.
- 1878 O
The snout fishes of the Kansas chalk.
Amer. Naturalist, xii, pp. 128-129.
- 1878 P
A new genus of *Oreodontidae*.
Amer. Naturalist, xii, p. 129.
Brief notice of *Ticholeptus*.

Cope, E. D.—Continued. 1878 Q
 [Note on fossils obtained by Mr. Russell S. Hill, including bones of *Protosaga gigas*.]
 Amer. Naturalist, xii, p. 137.

— 1878 R
 A new genus of *Dinosauria* from Colorado.
 Amer. Naturalist, xii, pp. 188-189.
 Brief notice of discovery of *Hypsirophus*.

— 1878 S
 [Review of Prof. L. Lesquereux's Contributions to the fossil flora of the Western Territories. Part II. The Tertiary flora.]
 Amer. Naturalist, xii, pp. 243-246.

— 1878 T
 The structure of *Coryphodon*.
 Amer. Naturalist, xii, pp. 324-326.
 Reply to Prof. O. C. Marsh, in Nature, vol. xvii, p. 340.

— 1878 U
 A new fauna.
 Amer. Naturalist, xii, pp. 327-328.
 Notes discovery of *Diadectes*, *Parioxys*, *Triacanthorhachis*, etc.

— 1878 V
 A new opisthocœlous dinosaur.
 Amer. Naturalist, xii, p. 406.
 Reprinted in Ann. and Mag. Nat. Hist. 5, vol. ii, p. 194.
 Notice of discovery of *Epanterias*.

— 1878 W
 Professor Marsh on Permian reptiles.
 Amer. Naturalist, xii, pp. 406-408.
 Refers to paper by Professor Marsh in Amer. Jour. Science, May, 1878.

— 1878 X
 The species of *Rhinoceros* of the Loup Fork epoch.
 Amer. Naturalist, xii, pp. 488-489.

— 1878 Y
 A new species of *Amphicœlia*.
 Amer. Naturalist, xii, pp. 563-564, with 1 woodcut.
 Describes *A. fragillimus*.

— 1878 Z
 A new *Diadectes*.
 Amer. Naturalist, xii, p. 566.
 Describes *D. molaris*.

— 1878 AA
 The vertebrae of *Rachitomus*.
 Amer. Naturalist, xii, p. 683.

Cope, E. D.—Continued. 1878 BB
 A fossil walrus discovered at Portland, Me.
 Amer. Naturalist, xii, p. 683.

— 1878 CC
 The Theromorphous *Reptilia*.
 Amer. Naturalist, xii, pp. 829-830.

— 1878 DD
 The homology of the chevron bones.
 Amer. Naturalist, xii, p. 319.

— 1878 EE
 Palæontology of Georgia.
 Amer. Naturalist, xii, p. 128.
 Announces the discovery of fossil reptiles in Cretaceous and Tertiary deposits in Georgia.

— 1878 FF
 Triassic saurians from Pennsylvania.
 Amer. Naturalist, xii, p. 58.

— 1878 GG
 A new deer from Indiana.
 Amer. Naturalist, iv, p. 189.
 Describes *Cariacus dolichopsis*.

— 1878 HH
 Mount Lebanon fishes in Dakota.
 Amer. Naturalist, xii, p. 57.

— 1879 A
 The relations of the horizons of extinct *Vertebrata* of Europe and America.
 Bull. U. S. Geol. and Geog. Surv. Terr., 1880, v, pp. 33-54.

— 1879 B
 Observations on the faunæ of the Miocene Tertiaries of Oregon.
 Bull. U. S. Geol. and Geog. Surv. Terr., 1880, v, pp. 55-69.

— 1879 C
 On the extinct species of *Rhinocœridæ* of North America and their allies.
 Bull. U. S. Geol. and Geog. Surv. Terr., 1879-80, v, pp. 227-237.

— An adaptation of this paper was published in Amer. Naturalist, xliii, 1879, pp. 771a-771j, with 8 woodcuts.

— 1879 D
 On some characters of the Miocene fauna of Oregon.
 Proc. Amer. Philos. Soc., xviii, pp. 63-78.
 Also in Pal. Bull. No. 30, pp. 1-16; said to have been issued Dec. 3, 1878.

— 1879 E
 Second contribution to a knowledge of the Miocene fauna of Oregon.
 Proc. Amer. Philos. Soc., xviii, pp. 370-376.
 Not issued until January, 1880. The same was issued as Pal. Bull. No. 31, pp. 1-7, Dec., 1879.
 A notice of this paper with list of species described occurs in Amer. Naturalist, xiv, p. 60.

- Cope, E. D.—Continued.** 1879 F
On the genera of *Felidae* and *Canidae*.
Proc. Acad. Nat. Sci. Phila., 1879, pp. 168-194.
Reprinted in Ann. and Mag. Nat. Hist. (5), vol. v, pp. 36-45, 92-107.
Contains list of genera and species of *Felidae*, the genera of *Canidae*, and descriptions of new species.
- 1879 G
The origin of the specialized teeth of the *Carnivora*.
Amer. Naturalist, xiii, pp. 171-173.
- 1879 H
Extinct *Mammalia* of Oregon.
Amer. Naturalist, xiii, p. 131.
- 1879 I
The necks of the *Suuropterygia*.
Amer. Naturalist, xiii, p. 132.
- 1879 J
The scales of *Liodon*.
Amer. Naturalist, xiii, p. 132.
A brief note calling attention to observation of Professor Snow and to his paper in Review of Science and Industry.
- 1879 K
Merycopater and *Hoplophoneus*.
Amer. Naturalist, xiii, p. 197.
- 1879 L
A new genus of *Perissodactyla*.
Amer. Naturalist, xiii, p. 270.
Establishes the genus *Anchisodon*.
- 1879 M
A new genus of *Ichthyopterygia*.
Amer. Naturalist, xiii, p. 271.
Notice of O. C. Marsh's genus, *Sauranodon*.
- 1879 N
The Amyzon Tertiary beds.
Amer. Naturalist, xiii, p. 332.
- 1879 O
A sting ray from the Green River shales of Wyoming.
Amer. Naturalist, xiii, p. 333.
The genus *Xiphotrygon* established.
- 1879 P
American *Aceratheria*.
Amer. Naturalist, xiii, p. 333.
- 1879 Q
The lower jaw of *Loxolophodon*.
Amer. Naturalist, xiii, p. 334.
- 1879 R
New Jurassic *Dinosauria*.
Amer. Naturalist, xiii, pp. 402-404, with 3 wood cuts.
Descriptions of *Camarasaurus leptodirus* and *Hypsirophus seelyanus*.
- Cope, E. D.—Continued.** 1879 S
A new *Anchitherium*.
Amer. Naturalist, xiii, pp. 462-463.
Description of *A. prazzani*.
- 1879 T
A decade of dogs.
Amer. Naturalist, xiii, p. 580.
A brief note giving a list of ten species of dogs furnished by the Truckee beds in Oregon.
- 1879 U
The cave bear of California.
Amer. Naturalist, xiii, p. 791.
Reprinted in Ann. and Mag. Nat. Hist. (5), vol. v, pp. 260-261; Amer. Jour. Sci., 1880, xix, p. 155.
Describes *Arctotherium simum*.
- 1879 V
On the extinct American rhinoceroses and their allies.
Amer. Naturalist, xiii, pp. 771a-771j, with 8 figs. in the text.
- 1879 W
Paleontological report of the Princeton scientific expedition of 1877.
Amer. Naturalist, xiii, p. 33.
A brief notice of the results of the expedition referred to in the title.
- 1879 X
Scientific news.
Amer. Naturalist, xiii, pp. 798a-798b.
Contains brief notice of excursions to Colorado and descriptions of *Archaeurus debilis* and *Hoplophoneus platycotis*.
- 1880 A
Second contribution to the history of the Vertebrata of the Permian formation of Texas.
Proc. Amer. Philos. Soc., xix, pp. 38-58.
Issued also as Pal. Bull. No. 32, pp. 1-22.
- 1880 B
On the foramina perforating the posterior part of the squamosal bone of the *Mammalia*.
Proc. Amer. Philos. Soc., xviii, pp. 452-461.
- 1880 C
On the genera of the *Creodonta*.
Proc. Amer. Philos. Soc., xix, pp. 76-82.
Synopsis in Kosmos, x, pp. 299-300.
- 1880 D
On the extinct cats of America.
Amer. Naturalist, xiv, pp. 832-858, with 15 wood cuts in the text.
- 1880 E
Hill's Kansas explorations.
Amer. Naturalist, xiv, p. 141.
Note on fossils collected by Russell S. Hill.

- Cope, E. D.**—Continued. 1880 F
Notes on sabre-tooths.
Amer. Naturalist, xiv, p. 143.
New genus *Pogonodon* established.
- 1880 G
A new *Hippidium*.
Amer. Naturalist, xiv, p. 223.
H. spectans, from Oregon, described.
- 1880 H
The skull of *Empedocles*.
Amer. Naturalist, xiv, p. 304.
- 1880 I
A new genus of Tapiroids.
Amer. Naturalist, xiv, pp. 382-383.
The genus *Triplopus* characterized.
- 1880 J
The structure of the Permian *Ganocephala*.
Amer. Naturalist, xiv, pp. 383-384.
- 1880 K
A new genus of *Rhinoceronitidae*.
Amer. Naturalist, xiv, p. 540.
The genus *Peraceras* established.
- 1880 L
Extinct *Batrachia*.
Amer. Naturalist, xiv, pp. 609-610.
- 1880 M
The genealogy of the American rhinoceroes.
Amer. Naturalist, xiv, pp. 610-611.
The new genus *Cenopus* proposed.
- 1880 N
The bad lands of the Wind River and their fauna.
Amer. Naturalist, xiv, pp. 745-748.
Two new genera and nine new species proposed.
- 1880 O
The northern Wasatch fauna.
Amer. Naturalist, xiv, p. 908.
- 1880 P
Traquair on *Platysomidae*.
Amer. Naturalist, xiv, pp. 439-440.
Review of Traquair, 1879 A.
- 1880 Q
The Geological Record.
Amer. Naturalist, xiv, p. 512.
A notice of the Geological Record for 1877, with citations of some errors.
- 1880 R
Marsh on Jurassic *Dinosauria*.
Amer. Naturalist, xiv, p. 302.
- 1880 S
Remarks on fossil vertebrates from California. *Elotherium*, *Mastodon obscurus*.
Amer. Naturalist, xiv, p. 62.
- Cope, E. D.**—Continued. 1880 T
The Manti beds of Utah.
Amer. Naturalist, xiv, p. 303.
- 1881 A
On some new *Batrachia* and *Reptilia* from the Permian beds of Texas.
Bull. U. S. Geol. and Geog. Surv. Terr., vi, article ii, pp. 79-82.
- 1881 B
On a wading bird from the Amyzon shales.
Bull. U. S. Geol. and Geog. Surv. Terr., vi, article iii, pp. 83-85.
Describes *Charatrus sheppardianus*.
- 1881 C
On the *Nimravidae* and *Canidae* of the Miocene period.
Bull. U. S. Geol. and Geog. Surv. Terr., vi, article iii, pp. 166-181.
- 1881 D
On the *Vertebrata* of the Wind River Eocene beds of Wyoming.
Bull. U. S. Geol. and Geog. Surv. Terr., vi, article viii, pp. 183-202.
Brief notice in Amer. Naturalist, vol. xv, p. 74 (Cope, 1881 CC).
- 1881 E
Review of the *Rodentia* of the Miocene period of North America.
Bull. U. S. Geol. and Geog. Surv. Terr., vi, article xv, pp. 361-386.
- 1881 F
On the *Canidae* of the Loup Fork epoch.
Bull. U. S. Geol. and Geog. Surv. Terr., vi, article xvi, pp. 387-390.
- 1881 G
The systematic arrangement of the order *Perissodactyla*.
Proc. Amer. Philos. Soc., xix, pp. 377-401.
- 1881 H
On some *Mammalia* of the lowest Eocene beds of New Mexico.
Proc. Amer. Philos. Soc., xix, pp. 484-495.
Issued also as Pal. Bull. No. 33.
- 1881 I
On the origin of the foot structures of the Ungulates.
Amer. Naturalist, xv, pp. 269-273, with 5 figs. in the text.
- 1881 J
On the effect of impacts and strains on the feet of *Mammalia*.
Amer. Naturalist, xv, pp. 542-548, with 11 figs. in the text.

- Cope, E. D.—Continued.** 1881 K
Catalogue of *Vertebrata* of the Permian formation of the United States.
Amer. Naturalist, xv, pp. 162-164.
- 1881 L
Extinct palæozoic fishes from Canada.
Amer. Naturalist, xv, pp. 252-253.
Notice of a paper read by J. F. Whiteaves.
- 1881 M
A new fossil bird.
Amer. Naturalist, xv, p. 253.
Notice of Dr. J. A. Allen's description of *Palæospiza bella*.
- 1881 N
Mammalia of the Lower Eocene beds.
Amer. Naturalist, xv, pp. 337-338.
Description of *Peryptichus carinidens* and *Deltatherium fundaminis*, new genera and new species.
- 1881 O
The classification of the *Perissodactyla*.
Amer. Naturalist, xv, p. 340.
- 1881 P
Miocene dogs.
Amer. Naturalist, xv, p. 497.
Contains correction of dental formula of *Hyaenocyon* and proposal of new genus *Oligobunis*.
- 1881 Q
The *Rodentia* of the American Miocene.
Amer. Naturalist, xv, pp. 586-587.
A catalogue of the known species, together with place of original description and the horizon of occurrence.
- 1881 R
A new *Clidastes* from New Jersey.
Amer. Naturalist, xv, pp. 587-588.
Description of *C. conodon*.
- 1881 S
The temporary dentition of a new Creodont.
Amer. Naturalist, xv, pp. 667-669.
Description of *Trisodon quivirensis* and *Deltatherium absaroke*.
- 1881 T
A Laramie saurian in the Eocene.
Amer. Naturalist, xv, pp. 669-670.
A new species, *Champsosaurus australis*, found in probably the Puerco.
- 1881 U
Mammalia of the lowest Eocene.
Amer. Naturalist, xv, pp. 829-831.
Descriptions of *Conoryctes comma*, gen. et spec. nov., *Catastheus rhabdodon*, gen. et spec. nov., and *Mioclenus turgidus*, gen. et spec. nov.
- Cope, E. D.—Continued.** 1881 V
Eocene *Plagiulacidae*.
Amer. Naturalist, xv, pp. 921-922.
Description of *Ptilodus medius*, gen. et spec. nov.
- 1881 W
Belodon in New Mexico.
Amer. Naturalist, xv, pp. 922-923.
Descriptions of *B. bucceros* and *B. scolopax*.
- 1881 X
A new type of *Perissodactyla*.
Amer. Naturalist, xv, pp. 1017-1018.
Refers *Phenacodus* to the *Perissodactyla*.
- 1881 Y
New genus of *Perissodactyla* *diplarthra*.
Amer. Naturalist, xv, p. 1018.
Refers *Hyracotherium tapirinum* to a new genus, *Systemodon*.
- 1881 Z
Notes on *Creodonta*.
Amer. Naturalist, xv, pp. 1018-1020.
Describes *Lipodectes penetrans* and *L. petridens*, new species, and establishes the genus *Dissacus*.
- 1881 AA
The Permian formation of New Mexico.
Amer. Naturalist, xv, pp. 1020-1021.
New species described, *Eryops reticulatus* and *Zatrachys apicalis*.
- 1881 BB
Geological news.
Amer. Naturalist, xv, pp. 254, 340, 413, 1023.
- 1881 CC
The *Vertebrata* of the Eocene of the Wind River basin.
Amer. Naturalist, xv, pp. 74-75.
Consists of a notice of the paper Cope 1881 D, and contains description of *Bathyopsis fissidens* Cope.
- 1882 A
The classification of the ungulate *Mammalia*.
Proc. Amer. Philos. Soc., xx, pp. 438-447, with 10 figs. in the text.
Issued also as part of Pal. Bul. No. 35.
- 1882 B
Third contribution to the history of the *Vertebrata* of the Permian formation of Texas.
Proc. Amer. Philos. Soc., xx, pp. 447-461.
Issued also as part of Pal. Bull. No. 35.
- 1882 C
Synopsis of the *Vertebrata* of the Puerco Eocene epoch.
Proc. Amer. Philos. Soc., xx, pp. 461-471.
Also as part of Pal. Bull. No. 35.

- Cope, E. D.—Continued.** 1882 D
On the systematic relations of the
Carnivora Fissipedia.
Proc. Amer. Philos. Soc., xx, pp. 471-475.
Issued also as part of Pal. Bull. No. 35. Re-
printed in Ann. and Mag. Nat. Hist. (5), xii,
pp. 112-116.
- 1882 E
Contributions to the history of the
Vertebrata of the Lower Eocene of Wyom-
ing and New Mexico, made during
1881. I. The fauna of the Wasatch
beds of the basin of the Big Horn
River. II. The fauna of the Catathlaeus
beds, or Lowest Eocene, New Mexico.
Proc. Amer. Philos. Soc., xx, pp. 139-197.
Issued also as Pal. Bull. No. 84.
For notices of this paper see Amer. Jour.
Sci., vol. xxiii, p. 325.
- 1882 F
On the *Condylarthra*.
Proc. Acad. Nat. Sci. Phila., 1882, pp. 95-97.
Reprinted in Ann. and Mag. Nat. Hist. (5), x,
pp. 76-79.
- 1882 G
Contemporaneity of man and Plio-
cene mammals.
Proc. Acad. Nat. Sci. Phila., 1882, pp. 291-
292.
- 1882 H
On *Uintatherium*, *Bathmodon*, and
Trisodon.
Proc. Acad. Nat. Sci. Phila., 1882, pp. 294-
300.
- 1882 I
The Tertiary formations of the cen-
tral region of the United States.
Amer. Naturalist, xvi, pp. 177-195, with 5
wood cuts in the text.
- 1882 J
The reptiles of the American Eocene.
Amer. Naturalist, xvi, pp. 979-993, with 13
wood cuts in the text.
- 1882 K
The oldest artiodactyle.
Amer. Naturalist, xvi, p. 71.
Reprinted in Ann. and Mag. Nat. Hist. (5),
ix, p. 204.
Description of *Mioclenus brachystomus*.
- 1882 L
The characters of the *Teniodonta*.
Amer. Naturalist, xvi, p. 72.
Reprinted in Ann. and Mag. Nat. Hist. (5),
ix, pp. 205-206.
- 1882 M
New forms of *Coryphodontidae*.
Amer. Naturalist, xvi, p. 73.
- Cope, E. D.—Continued.** 1882 N
An anthropomorphous lemur.
Amer. Naturalist, xvi, pp. 73-74.
Describes *Anaptomorphus homunculus*.
- 1882 O
Recent extinction of the mastodon.
Amer. Naturalist, xvi, pp. 74-75.
Refers to Prof. John Collett's "Geological
Report of Indiana for 1880."
- 1882 P
A new genus of *Tillodonta*.
Amer. Naturalist, xvi, pp. 156-157.
Describes *Prillathotherium multifragum*.
- 1882 Q
Marsh on the classification of the
Dinosauria.
Amer. Naturalist, xvi, pp. 253-255.
- 1882 R
New characters of the *Perissodactyla*
Condylarthra.
Amer. Naturalist, xvi, p. 334.
- 1882 S
Mesonyx and *Oxyena*.
Amer. Naturalist, xvi, p. 334.
- 1882 T
The rhachitomous *Stegocephala*.
Amer. Naturalist, xvi, pp. 334-335.
- 1882 U
A second genus of Eocene *Plagiaula-*
cidae.
Amer. Naturalist, xvi, pp. 416-417.
Description of *Calopsalis foliatus*.
- 1882 V
Two new genera of the Puerco
Eocene.
Amer. Naturalist, xvi, pp. 417-418.
Descriptions of *Haploconus lineatus* and *Pan-*
tolambda bathmodon, new genera and new
species.
- 1882 W
The ancestry and habits of *Thyla-*
coleo.
Amer. Naturalist, xvi, pp. 520-522.
Correction of the table of genera of *Plagi-*
aulacidae.
- 1882 X
Notes on Eocene *Mammalia*.
Amer. Naturalist, xvi, p. 522.
Lipodectes penetrans is a synonym of *Delta-*
tharium fundaminis. *D. abrarotzi* is referred
to *Didelphodus*. *Oligotomus osbornianus* is re-
ferred to *Ectocion*.
- 1882 Y
On the *Taxeopoda*, a new order of
Mammalia.
Amer. Naturalist, xvi, pp. 522-523.

Cope, E. D.—Continued.

1882 Z

A new genus of *Tæniodonta*.
Amer. Naturalist, xvi, pp. 604-606.
Description of *Tæniolabis sulcatus*.

1882 AA

New marsupials from the Puerco
Eocene.

Amer. Naturalist, xvi, pp. 684-686.
Polymastodon taöensis, gen. et spec. nov.;
Ptilodus troessartianus, spec. nov.; *Haploconus*
entoconus, spec. nov.; and *H. gillianus* spec.
nov.

1882 BB

Mammalia in the Laramie formation.
Amer. Naturalist, xvi, pp. 830-831.
Description of *Mentacozous conquistus*, gen.
et spec. nov.

1882 CC

A new form of *Tæniodonta*.
Amer. Naturalist, xvi, pp. 831-832.
Describes *Hemiganus vultuosus*, gen. et spec.
nov.

1882 DD

The *Periptychidae*.
Amer. Naturalist, xvi, pp. 832-833.
Periptychidae, fam. nov. established; *Hemithirus kowalevskianus*, gen. et spec. nov., and
Anisonchus confertus described.

1882 EE

Some new forms from the Puerco
Eocene.
Amer. Naturalist, xvi, pp. 833-834.
Miocænus opisthacrus, *M. baldwini*, *Prologonia*
plückeri, and *Dissacus carnifex* described.

1882 FF

The recent discoveries of fossil foot-
prints in Carson, Nev.
Amer. Naturalist, xvi, pp. 921-923.
Notice of a paper by Prof. Jos. Le Conte.

1882 GG

Two new genera of *Mammalia* from
the Wasatch Eocene.
Amer. Naturalist, xvi, p. 1029.
Genera *Diacoderix* and *Heptodon* estab-
lished.

1882 HH

Permian *Vertebrata*.
Amer. Naturalist, xvi, p. 925.
A short note.

1882 II

Geological news.
Amer. Naturalist, xvi, pp. 925-926.
Mention of *Orthocynodon* of Scott and
Osborn.

1882 JJ

Scientific news.
Amer. Naturalist, xvi, pp. 533-534.

1883 A

On a new extinct genus and species
of *Percidae* from Dakota Territory.
Amer. Jour. Sci. (3), xxv, pp. 414-416.

Cope, E. D.—Continued.

1883 B

The evidence for evolution in the
history of the extinct *Mammalia*.
Science, II, pp. 272-279.

Address at the Amer. Assoc. Adv. Science,
at Minneapolis, Minn. Reprinted in *Nature*,
vol. xxix, pp. 227-230, 248-250.

1883 C

The structure of the skull in *Diclo-
ninus mirabilis*, a Laramie dinosaurian.
Science (1), II, p. 338.
Abstract of paper read before Amer. Assoc.
Adv. Sci.

1883 D

The classification of the *Ungulata*.
Proc. Amer. Assoc. Adv. Science, 31st meet-
ing, Montreal, 1882, pp. 477-479.
Abstract of paper read.

1883 E

The fauna of the Puerco Eocene.
Proc. Amer. Assoc. Adv. Science, 31st meet-
ing, Montreal, 1882, pp. 479-480.
Abstract of paper read before A. A. A. S.

1883 F

On a new basin of White River age
in Dakota.
Proc. Amer. Philos. Soc., xxi, pp. 216-217.

1883 G

On the brains of the Eocene *Mamma-
lia*, *Phenacodus* and *Periptychus*.
Proc. Amer. Philos. Soc., xx, pp. 563-565,
with pl. I and II.
Issued also as part of Pal. Bull. No. 36.

1883 H

Fourth contribution to the history of
the Permian formation in Texas.
Proc. Amer. Philos. Soc., xx, pp. 628-636.
Issued also as part of Pal. Bull. No. 36.

1883 I

On the mutual relations of the buno-
therian *Mammalia*.
Proc. Acad. Nat. Sci. Phila., 1883, pp. 77-83.
Reprinted in Ann. and Mag. Nat. Hist. (5),
xii, pp. 20-26.

1883 J

On the characters of the skull in the
Hadrosauridae.
Proc. Acad. Nat. Sci. Phila., 1883, pp. 97-107,
with pls. iv-vii.

1883 K

On some *Vertebrata* from the Permian
of Illinois.
Proc. Acad. Nat. Sci. Phila., 1883, pp. 106-110.
Diplodus replaced by *Didymodus*; *Thoraco-
dus emyditinus* gen. et spec. nov., *Ctenodus hetero-
lophus* sp. nov., *Ctenodus vobascensis* sp. nov.,
described.

- Cope, E. D.—Continued.** 1883 L
On the fishes of the recent and Pliocene lakes of the western part of the Great Basin, and of the Idaho Pliocene lake.
Proc. Acad. Nat. Sci. Phila., 1883, pp. 134-166, with a map of the region.
- 1883 M
First addition to the fauna of the Puerco Eocene.
Proc. Amer. Philos. Soc., xx, pp. 545-563.
Issued also as part of Pal. Bull. No. 36.
Contains descriptions of 2 new genera and 8 species; also "Note on the Mammalia of the Puerco and the origin of the quadritubercular molar."
- 1883 N
On a new extinct genus of *Sirenia* from South Carolina.
Proc. Acad. Nat. Sci. Phila., 1883, pp. 52-64.
Describes *Dioplotherium manigaulti*.
- 1883 O
The tritubercular type of superior molar tooth.
Proc. Acad. Nat. Sci. Phila., 1883, p. 56.
- 1883 P
Permian fishes and reptiles.
Proc. Acad. Nat. Sci. Phila., 1883, p. 69.
- 1883 Q
On some fossils of the Puerco formation.
Proc. Acad. Nat. Sci. Phila., 1883, pp. 168-170.
- 1883 R
On extinct *Rhinoceri* from the Southwest.
Proc. Acad. Nat. Sci. Phila., 1883, p. 301.
- 1883 S
The extinct *Rodentia* of North America.
Amer. Naturalist, xvii, pp. 43-57, 165-174, 370-381, with 30 wood cuts in the text.
- 1883 T
On the extinct dogs of North America.
Amer. Naturalist, xvii, pp. 235-249, with 14 wood cuts in the text.
- 1883 U
On *Uintatherium* and *Bathmodon*.
Amer. Naturalist, xvii, p. 68.
- 1883 V
The Nevada biped tracks.
Amer. Naturalist, xvii, pp. 69-71, with 3 figs.
- Cope, E. D.—Continued.** 1883 W
New *Mammalia* from the Puerco Eocene.
Amer. Naturalist, xvii, p. 191.
Notice and abstract of paper read before Amer. Philos. Soc. (Cope, 1883 M.)
- 1883 X
A new fossil Sirenian.
Amer. Naturalist, xvii, p. 309.
Abstract of Cope, E. D., 1883 N.
- 1883 Y
Lydekker on Indian *Mammalia*.
Amer. Naturalist, xvii, pp. 405-406.
Discusses the standing of certain genera of *Rhinocerotidae*.
- 1883 Z
The ancestor of *Coryphodon*.
Amer. Naturalist, xvii, pp. 406-407.
- 1883 AA
Note on the trituberculate type of molar and the origin of the quadrituberculate.
Amer. Naturalist, xvii, pp. 407-408.
- 1883 BB
The genus *Phenacodus*.
Amer. Naturalist, xvii, p. 585, pl. xii.
- 1883 CC
The structure and appearance of the Laramie dinosaurian.
Amer. Naturalist, xvii, pp. 774-777, pls. xvi-xix.
Description of *Diclonius mirabilis*.
- 1883 DD
The "third trochanter" of the dinosaurs.
Amer. Naturalist, xvii, p. 969.
Notice of observations made by M. Dollo.
- 1883 EE
Some new *Mammalia* of the Puerco formation.
Amer. Naturalist, xvii, p. 968.
Abstract of paper, Cope, E. D., 1883 Q.
- 1883 FF
The progress of the *Ungulata* in Tertiary time.
Amer. Naturalist, xvii, pp. 1056-1067.
Abstract of paper read before the A. A. A. S. in Minneapolis, 1883.
- 1883 GG
A new Chondrosteian from the Eocene.
Amer. Naturalist, xvii, pp. 1152, 1153.
Describes *Crassopholis magnicaudatus* gen. et spec. nov.

- Cope, E. D.—Continued.** 1883 HH
The Carson footprints.
Amer. Naturalist, xvii, p. 1158.
- 1883 II
Geological notes. Tertiary.
Amer. Naturalist, xvii, pp. 970-971.
- 1884 A
A Carboniferous genus of sharks still living.
Science, iii, p. 275.
Refers to S. Garman's *Chlamydoselachus*.
- 1884 B
Pleuracanthus and *Didymodus*.
Science, iii, pp. 645-646.
Reply to Dr. Theo. Gill (Gill, 1884 A.).
- 1884 C
[On the phylogeny of American artiodactyle mammals.]
Science, iv, p. 339.
Abstract of paper read before Amer. Assoc. Adv. Sci., 1884.
- 1884 D
[On saurians of the Permian epoch.]
Science, iv, p. 340.
Abstract of paper read before Amer. Assoc. Adv. Sci., 1884.
- 1884 E
On the trituberculate type of molar tooth in the *Mammalia*.
Proc. Amer. Assoc. Adv. Science, 32d meeting, Minneapolis, 1883, pp. 313-316.
Abstract of paper read.
- 1884 F
On the structure of the skull in *Diclonius mirabilis*, a Laramie dinosaurian.
Proc. Amer. Assoc. Adv. Sci., 32d meeting, Minneapolis, 1883, pp. 315-316; abstract.
- 1884 G
The extinct *Mammalia* of the Valley of Mexico.
Proc. Amer. Philos. Soc., xxii, pp. 1-21.
Also as part of Pal. Bull. No. 39.
- 1884 H
On the structure of the feet in the extinct *Artiodactyla* of North America.
Proc. Amer. Philos. Soc., xxii, pp. 21-27.
Also as part of Pal. Bull. No. 39.
- 1884 I
Fifth contribution to the knowledge of the fauna of the Permian Formation of Texas and the Indian Territory.
Proc. Amer. Philos. Soc., xxii, pp. 28-47, pl. 1.
Also as part of Pal. Bull. No. 39.
Besides descriptions of new species, this paper discusses: The posterior foot in *Pelycosauria*; the structure of the columella auris in *Clepsydrops leptoccephalus*; the structure of the quadrate bone in the genus *Clepsydrops*; the articulation of the ribs in *Embolophorus*; the origin of the *Mammalia*; the tarsus; phylogeny of the *Vertebrata*.
- Cope, E. D.—Continued.** 1884 J
On the distribution of the Loup Fork formation in New Mexico.
Proc. Amer. Philos. Soc., xxi, pp. 308-309.
Issued also as part of Pal. Bull. No. 37.
- 1884 K
Second addition to the knowledge of the Puerco epoch.
Proc. Amer. Philos. Soc., xxi, pp. 309-324.
Issued also as part of Pal. Bull. No. 37.
- 1884 L
On the trituberculate type of molar tooth in the *Mammalia*.
Proc. Amer. Philos. Soc., xxi, pp. 324-326.
Issued also as part of Pal. Bull. No. 37.
This paper is practically the same as Cope, 1884 E.
- 1884 M
Synopsis of the species of *Oreodontidae*.
Proc. Amer. Philos. Soc., xxi, pp. 508-522.
Issued also as part of Pal. Bull. No. 38.
- 1884 N
On the structure of the skull in the elasmobranch genus *Didymodus*.
Proc. Amer. Philos. Soc., xxi, pp. 572-590, with 1 pl.
Issued also as part of Pal. Bull. No. 38.
- 1884 O
The *Vertebrata* of the Tertiary formations of the West. Book I.
Report U. S. Geol. Survey of the Territories, F. V. Hayden, U. S. geologist in charge, 1884, Washington, iii, pp. i-xxxv, 1-1009; pls. i-xxxva.
This work was not actually issued until the year 1885.
Reviewed in Geol. Magazine, (3) iii, pp. 410-419, 465-477, 512-521.
- 1884 P
The *Batrachia* of the Permian period of North America.
Amer. Naturalist, xviii, pp. 26-39, with pls. ii-v and 7 woodcuts.
- 1884 Q
The Loup Fork beds on the Gila River.
Amer. Naturalist, xviii, pp. 58-59.
Mentions finding of *Aphelops fossiger*.
- 1884 R
On new lemuroids from Puerco formation.
Amer. Naturalist, xviii, pp. 59-62.
- 1884 S
The *Creodonta*.
Amer. Naturalist, xviii, pp. 255-267, 344-353, 478-485, with 30 woodcuts in the text.

- Cope, E. D.—Continued.** 1884 T
The history of the *Oreodontidae*.
Amer. Naturalist, xviii, pp. 280-282.
Synopsis of portion of a paper read before
Amer. Philos. Society.
- 1884 U
The skull of a still living shark of the
Coal-measures.
Amer. Naturalist, xviii, pp. 412-413.
Refers *Chlamydoselachus anguineus* to *Didymodus*.
- 1884 V
The mastodons of North America.
Amer. Naturalist, xviii, pp. 524-526.
Descriptions of 9 species.
- 1884 W
Marsh on *Diplodocus*.
Amer. Naturalist, xviii, p. 526.
- 1884 X
The pelvis of Edentates.
Amer. Naturalist, xviii, pp. 639-640.
Notice of paper by P. Albrecht.
- 1884 Y
The Tertiary *Marsupialia*.
Amer. Naturalist, xviii, pp. 686-697, with 9
illus.
- 1884 Z
Lydekker on extinct *Mammalia* of
India.
Amer. Naturalist, xviii, pp. 617-618.
- 1884 AA
The *Condylarthra*.
Amer. Naturalist, xviii, pp. 790-805, 892-906;
pls. xxviii-xxx and 28 woodcuts in the text.
- 1884 BB
The *Choristodera*.
Amer. Naturalist, xviii, pp. 815-817.
Remarks on paper by Dr. Lemoine on *Simu-
dosaurus*.
- 1884 CC
The genus *Pleuracanthus*.
Amer. Naturalist, xviii, p. 818; pl. xxlii.
Plate containing figures of *Didymodus com-
pressus* and *D. platypterus*.
- 1884 DD
Observations on the phylogeny of the
Artiodactyla derived from American
fossils.
Amer. Naturalist, xviii, pp. 1084-1086.
- 1884 EE
The *Amblypoda*.
Amer. Naturalist, xviii, pp. 1110-1121, 1192-
1202, with 23 woodcuts in the text.
Concluded in vol. xix, pp. 40-55.
- 1884 FF
The origin of the *Mammalia*.
Amer. Naturalist, xviii, pp. 1136-1137.
Synopsis of paper read before the Amer.
Assoc. Adv. Sci., 1884.
- Cope, E. D.—Continued.** 1884 GG
The structure of the columella auris
in *Clepsydrops leptocephalus*.
Amer. Naturalist, xviii, pp. 1253-1255, pl. 38.
- 1884 HH
Note on the phylogeny of the *Verte-
brata*.
Amer. Naturalist, xviii, pp. 1255-1257.
- 1884 II
The evidence for evolution in the
history of the extinct *Mammalia*.
Nature, xxix, pp. 227-230, 248-250.
Abstract of lecture given before Amer.
Assoc. Adv. Sci., 1884.
- 1884 JJ
Genus *Equus*.
Fourteenth Report State Geologist Indiana,
pt. II, pp. 40-41, being an appendix to article
by Cope and Wortman.
- 1885 A
The relations between the thero-
morphous reptiles and the monotreme
Mammalia.
Proc. Amer. Assoc. Adv. Sci., 33d meeting,
Phila., 1884, pp. 471-482, with 1 pl.
- 1885 B
On the structure of the feet in the
extinct *Artiodactyla* of North America.
Proc. Amer. Assoc. Adv. Sci., 33d meeting,
Phila., 1884, pp. 482-490.
- 1885 C
The occurrence of man in the upper
Miocene of Nebraska.
Proc. Amer. Assoc. Adv. Sci., 33d meeting,
Phila., 1884, p. 593; abstract.
- 1885 D
Second continuation of researches
among the *Batrachia* of the Coal-meas-
ures of Ohio.
Proc. Amer. Philos. Soc., xxii, pp. 406-408.
Also forming a portion of Pal. Bull. No. 40.
- 1885 E
On the contents of a bone cave in
the island of Anguilla (West Indies).
Smithsonian Contributions to Knowledge,
xxv, article III, pp. 1-30, pls. i-iv.
- 1885 F
The *Amblypoda*.
Amer. Naturalist, xix, pp. 40-55, figs. 24-35.
Treats of the *Dinocera*, and is continued
from p. 1202, vol. xviii.
- 1885 G
On the evolution of the *Vertebrata*,
progressive and retrogressive.
Amer. Naturalist, xix, pp. 140-148, 234-247,
341-353.
See also Cope, E. D., 1885 A.A.

- Cope, E. D.—Continued.** 1885 H
The White River beds of Swift Current River, Northwest Territory.
Amer. Naturalist, xix, p. 163.
- 1885 I
The position of *Pterichthys* in the system.
Amer. Naturalist, xix, pp. 289-291, with 2 figs.
- 1885 J
The oldest Tertiary *Mammalia*.
Amer. Naturalist, xix, pp. 385-387.
- 1885 K
The *Lemuroidea* and the *Insectivora* of the Eocene period of North America.
Amer. Naturalist, xix, pp. 457-471, with 18 woodcuts in the text.
- 1885 L
The mammalian genus *Hemiganus*.
Amer. Naturalist, xix, p. 492.
- 1885 M
Mammals from the Lower Eocene of New Mexico.
Amer. Naturalist, xix, pp. 498-494.
- 1885 N
The genera of the *Dinocerata*.
Amer. Naturalist, xix, p. 594.
- 1885 O
Marsh on the *Dinocerata*.
Amer. Naturalist, xix, pp. 703-705.
- 1885 P
Garman on *Didymodus*.
Amer. Naturalist, xix, pp. 878-879.
- 1885 Q
The relations of the Puerco and Laramie deposits.
Amer. Naturalist, xix, pp. 985-986.
- 1885 R
The ankle and skin of the dinosaur, *Diclonius mirabilis*.
Amer. Naturalist, xix, p. 1208; pl. xxxvii, figs. 1-3.
- 1885 S
Pliocene horses of southwestern Texas.
Amer. Naturalist, xix, pp. 1208-1209; pl. xxxvii, figs. 4-6.
- 1885 T
Mr. Lydekker on *Esthonyx*.
Geol. Magazine (3), ii, pp. 526-527.
- 1885 U
Palæontological nomenclature.
Geol. Magazine (3), ii, pp. 572-575.
- Cope, E. D.—Continued.** 1885 V
The structure of the columella auris in the *Pelycosauria*.
Memoirs Nat. Acad. Sci., iii, pp. 98-96, with 5 figs. in the text.
- 1885 W
The *Batrachia* of the Permian beds of Bohemia and the Labyrinthodont from the Bijori group (India).
Amer. Naturalist, xix, pp. 592-594.
A brief review of works by Fritsch and Lydekker.
- 1885 X
Polemics in palæontology.
Amer. Naturalist, xix, pp. 1207-1208.
- 1885 Y
Eocene paddle-fish and *Goniorhynchidae*.
Amer. Naturalist, xix, pp. 1090-1091.
- 1885 Z
A contribution to the vertebrate palæontology of Brazil.
Proc. Amer. Philos. Soc., xxiii, pp. 1-21, with pl. i.
Also as part of Pal. Bull. No. 40, pp. 1-21, with pl. i.
- 1885 AA
The genealogy of the *Vertebrata* as learned from palæontology.
Trans. Vassar Brothers' Institute, iii, pp. 60-80.
The substance of this lecture was published in the Amer. Naturalist, xix. See Cope, E. D., 1885 G.
- 1886 A
On the structure of the brain and auditory apparatus of a theromorphous reptile of the Permian epoch.
Proc. Amer. Assoc. Adv. Science, 34th meeting, Ann Arbor, 1885, pp. 336-341.
- 1886 B
On two new species of three-toed horses from the upper Miocene, with notes on the fauna of the Ticholeptus beds.
Proc. Amer. Philos. Soc., xxiii, pp. 357-361.
- 1886 C
The phylogeny of the *Camelidae*.
Amer. Naturalist, xx, pp. 611-624, with 12 wood cuts in the text.
- 1886 D
An interesting connecting genus of *Chordata*.
Amer. Naturalist, xx, pp. 1027-1031.
Description of *Myclerops ordinatus*.

- Cope, E. D.—Continued.** 1886 E
The sternum of the *Dinosauria*.
Amer. Naturalist, xx, pp. 153-154, with 2 figs.
in the text.
- 1886 F
Corrections of notes on *Dinocera*.
Amer. Naturalist, xx, p. 155.
- 1886 G
An extinct dog.
Amer. Naturalist, xx, p. 274.
Notice of *Pachycyon robustus* described by
Dr. J. A. Allen.
- 1886 H
The vertebrate fauna of the Ticholep-
tus beds.
Amer. Naturalist, xx, pp. 367-369.
- 1886 I
The *Plagiaulacidae* of the Puerco
epoch.
Amer. Naturalist, xx, p. 451.
Describes *Neoplagiaulax molestus*.
- 1886 J
The long-spined *Theromorpha* of the
Permian epoch.
Amer. Naturalist, xx, pp. 544-545.
- 1886 K
Schlosser on the phylogeny of the
ungulate *Mammalia*.
Amer. Naturalist, xx, pp. 719-721.
Review of paper by Max Schlosser in Mor-
phologisches Jahrbuch for 1886.
For reply to Professor Cope see Morpholog.
Jahrbuch, xii, pp. 575-580.
- 1886 L
Schlosser on *Creodonta* and *Phenaco-
dus*.
Amer. Naturalist, xx, pp. 965-967.
Review of paper by Max Schlosser in Mor-
pholog. Jahrbuch, 1886, p. 287.
- 1886 M
Dollo on extinct tortoises.
Amer. Naturalist, xx, p. 967.
Review of paper by M. Dollo in Bull. Mus.
Roy. Belgique, 1886, p. 75.
- 1886 N
A giant armadillo from the Miocene
of Kansas.
Amer. Naturalist, xx, pp. 1044-1046.
Describes *Caryoderma smorianum*.
- 1886 O
The batrachian intercentrum.
Amer. Naturalist, xx, pp. 76-77.
- 1886 P
The intercentrum in *Sphenodon*.
Amer. Naturalist, xx, p. 175.
- 1886 Q
Note on *Phenacodus*.
Geol. Magazine (3), iii, pp. 238-239.
- Cope, E. D.—Continued.** 1886 R
Note on *Erisichthe*.
Geol. Magazine (3) iii, p. 239.
- 1886 S
Edestus and *Pelecopterus*.
Geol. Magazine (3) iii, pp. 141-142.
Refers to statements in Woodward H., 1886 A
regarding *Pelecpterus*, with a reply by Mr. W.
Davies, F. G. S.
- 1886 T
On two new forms of Polyodont and
Goniorhynchid fishes from the Eocene
of the Rocky Mountains.
Memoirs Nat. Acad. Sciences, iii, pp. 161-169,
with plate containing 6 figures.
Describes *Crossopholis magnicaudatus*, *Noto-
goneus osculus* and *Priscacara hypacanthus*.
See notice of this paper in Geol. Magazine,
vol. v, 1888, p. 229, by A. S. Woodward.
- 1886 U
The *Vertebrata* of the Swift Current
Creek region of the Cypress Hills.
Annual Report of the Geol. and Nat. Hist.
Survey of Canada, i, 1885, appendix to article
C, pp. 79-85.
- 1886 V
An analytical table of the genera of
snakes.
Proc. Amer. Philos. Society, xxiii, pp. 479-
499.
- 1886 W
Report on the coal deposits near
Zacualtipan, in the State of Hidalgo,
Mexico.
Proc. Amer. Philos. Soc., xxiii, pp. 146-151,
with 2 text figures.
In this paper are described *Hippotherium
peninsulatum*, sp. nov., and *Prothippus castilli*,
sp. nov., from Loup Fork shales, near Vera
Cruz.
- 1887 A
A contribution to the history of the
Vertebrata of the Trias of North Amer-
ica.
Proc. Amer. Philos. Soc., xxiv, pp. 209-228,
pls. i, ii.
- 1887 B
The classification and phylogeny of
the *Artiodactyla*.
Proc. Amer. Philos. Soc., xxiv, pp. 377-400.
- 1887 C
The dinosaurian genus *Coelurus*.
Amer. Naturalist, xxi, pp. 367-369.
- 1887 D
The Mesozoic and Cenozoic realms
of the interior of North America.
Amer. Naturalist, xxi, pp. 445-462.

- Cope, E. D.—Continued.** 1887 E
American Triassic *Rhynchocephalia*.
Amer. Naturalist, xxi, p. 468.
Description of *Typhothorax coccinarum*.
- 1887 F
Some new *Teniodonta* of the Puerco.
Amer. Naturalist, xxi, p. 469.
Description of *Psittacotherium megalodus*.
- 1887 G
The sea-saurians of the Fox Hills
Cretaceous.
Amer. Naturalist, xxi, pp. 563-566.
Description of *Piptomerus megaloporus*, *P. microporus*, *P. hexagonus*, and *Orophosaurus pauciporus*.
- 1887 H
The marsupial genus *Chirox*.
Amer. Naturalist, xxi, pp. 566-567, with 1
woodcut in the text.
- 1887 I
Pavlow on the ancestry of Ungulates.
Amer. Naturalist, xxi, pp. 656-658.
- 1887 J
[Note on *Belodon buceros*.]
Amer. Naturalist, xxi, pp. 659-660.
- 1887 K
Scott and Osborn on White River
Mammalia.
Amer. Naturalist, xxi, pp. 924-926.
Review of above author's paper, "Preliminary account of fossil mammals from the White River formation," etc., in Bull. Mus. Comp. Zool., vol. xlii.
- 1887 L
Marsh on new fossil *Mammalia*.
Amer. Naturalist, xxi, pp. 926-927.
Review of Marsh, 1887 B.
- 1887 M
Scott on *Creodonta*.
Amer. Naturalist, vol. xxi, p. 927.
Review of Scott in Jour. Acad. Nat. Sci., Phila., vol. ix, pp. 155-185.
- 1887 N
The *Perissodactyla*.
Amer. Naturalist, xxi, pp. 985-1007; 1060-1076, with 44 figs. in the text.
- 1887 O
Zittel's Manual of Paleontology.
Amer. Naturalist, xxi, pp. 1014-1019.
A review of the above work of Professor Zittel, and containing a classification of the Teleostomous fishes.
- 1887 P
A saber-toothed tiger from the Loup Fork beds.
Amer. Naturalist, xxi, pp. 1019-1020.
Description of *Machærodus catocopsis*.
- Cope, E. D.—Continued.** 1887 Q
Thomas on mammalian dentition.
Amer. Naturalist, xxi, pp. 1101-1103.
Review of Thomas, O., in Phil. Trans. Roy. Soc., vol. clxxviii B., pp. 443-486.
- 1887 R
Lydekker, Boulenger, and Dollo on fossil tortoises.
Geol. Magazine (3), iv, pp. 572-573.
- 1887 S
The origin of the fittest. Essays on evolution.
8 vo., pp. i-xx; 1-467, with 81 figs. in the text.
New York, 1887.
This work is composed of 21 essays, all of which had been previously published elsewhere.
- 1888 A
Mesozoic Realm.
Amer. Geologist, ii, pp. 261-268.
A portion of the reports of the American committee of the International Congress of Geologists.
- 1888 B
Report of the subcommittee on the Cenozoic (Interior). Cenozoic Realm.
Amer. Geologist, ii, pp. 285-299.
A portion of the reports of the American committee of the International Congress of Geologists.
- 1888 C
Vertebrate fauna of the Puerco series.
Science, xi, p. 198.
Abstract of paper read before the Nat. Acad. of Sci., 1888.
- 1888 D
The mechanical origin of the sectorial teeth of the *Carnivora*.
Proc. Amer. Assoc. Adv. Sci., 36th meeting.
New York, 1887, pp. 254-257.
- 1888 E
On the *Dicotyles* of the John Day Miocene of North America.
Proc. Amer. Philos. Soc., xxv, pp. 62-79.
- 1888 F
On the mechanical origin of the dentition of the *Amblypoda*.
Proc. Amer. Philos. Soc., xxv, pp. 80-88, with 6 woodcuts in the text.
- 1888 G
On the tritubercular molar in human dentition.
Jour. Morphology, ii, pp. 7-26, pls. ii, iii.
- 1888 H
On the relation of the hyoid and otic elements of the skeleton in the *Batrachia*.
Jour. Morphology, ii, pp. 297-310, with pls. xxii-xxiv.

- Cope, E. D.—Continued.** 1888 I
The mechanical causes of the origin of the dentition of the *Rodentia*.
Amer. Naturalist, xxii, pp. 3-11, with 7 woodcuts in the text.
- 1888 J
Note on the *Marsupialia multituberculata*.
Amer. Naturalist, xxii, pp. 12-13, with 2 figs. in the text.
- 1888 K
The vertebrate fauna of the Puerco epoch.
Amer. Naturalist, xxii, pp. 161-163.
- 1888 L
Lydekker's Catalogue of Fossil *Mammalia* in the British Museum, Part V.
Amer. Naturalist, xxii, pp. 164-165.
Review of Lydekker R. 1887 A.
- 1888 M
The *Multituberculata* Monotremes.
Amer. Naturalist, xxii, p. 259.
Refers to the discovery of teeth in the young of *Ornithorhynchus*, and the conclusion is reached that the *Multituberculata* are Monotremes.
- 1888 N
Glyptodon from Texas.
Amer. Naturalist, xxii, pp. 345-346.
Describes *G. petaliferus*.
- 1888 O
The ossicula auditus of the *Batrachia*.
Amer. Naturalist, xxii, pp. 464-467, pl. vi.
- 1888 P
Notes on *Celosteus ferox* Newb. and *Titanichthys clarkii* Newb.
Amer. Naturalist, xxii, pp. 637-638.
- 1888 Q
Topinard on the latest steps in the genealogy of man.
Amer. Naturalist, xxii, pp. 660-663.
- 1888 R
Osborn on the Mesozoic *Mammalia*.
Amer. Naturalist, xxii, pp. 723-724, pl. xiv.
Review of Osborn, H. F., 1888 G.
- 1888 S
Lydekker on the *Ichthyosauria* and *Plesiosauria*.
Amer. Naturalist, xxii, pp. 724-726.
Review of Lydekker, R., 1888 D.
- 1888 T
Rütimeyer on the classification of *Mammalia*, and on American types recently found in Switzerland.
Amer. Naturalist, xxii, pp. 831-835.
Review of Rütimeyer, L. 1888 A.
- Cope, E. D.—Continued.** 1888 U
The pineal eye in extinct vertebrates.
Amer. Naturalist, xxii, pp. 914-917, pls. xv-xviii.
- 1888 V
Handbuch der Paläontologie of Zittel.
Amer. Naturalist, xxii, pp. 1018-1019.
Review of Zittel, K. A. 1890 A.
- 1888 W
Schlosser on *Carnivora*.
Amer. Naturalist, xxii, pp. 1019-1020.
Review of Schlosser, M. 1887 B.
- 1888 X
The *Artiodactyla*.
Amer. Naturalist, xxii, pp. 1079-1096, pls. xxvii, xxviii, and 6 woodcuts in text.
- 1888 Y
Goniopholis in the Jurassic of Colorado.
Amer. Naturalist, xxii, pp. 1106-1107.
Describes *G. lucasi* Cope, transferred from *Amphicotylus*.
- 1888 Z
A horned dinosaurian reptile.
Amer. Naturalist, xxii, pp. 1108-1109.
Refers to Marsh, O. C. 1888 C.
- 1888 AA
On the intercentrum of the terrestrial *Vertebrata*.
Trans. Amer. Philos. Soc., xvi, pp. 243-253, with pl. i, and 6 figs. in the text.
- 1888 BB
Systematic catalogue of the species of *Vertebrata* found in the beds of the Permian epoch in North America, with notes and descriptions.
Trans. Amer. Philos. Soc., xvi, pp. 285-297, with pls. ii and iii, and 1 fig. in the text.
Describes as new *Ectocynodon incisivus*.
- 1888 CC
Synopsis of the vertebrate fauna of the Puerco series.
Trans. Amer. Philos. Soc., xvi, pp. 298-361, with pls. iv and v, and 11 figs. in the text.
Contains a list of 106 species belonging to the Puerco, of which 18 are described as before unknown.
- 1888 DD
On the shoulder girdle and extremities of *Eryops*.
Trans. Amer. Philos. Soc., xvi, pp. 362-367, with plate of 4 figs.

- Cope, E. D.—Continued.** 1888 EE
Schlosser on the Cænozoic marsupials and *Unguiculata*.
Amer. Naturalist, xxii, pp. 163-164.
A review of Schlosser's paper on "Affen, Lemuriden," etc.
- 1889 A
The age of the Denver formation.
Science, xlii, p. 290.
Discusses "*Bison alticornis*" Marsh.
- 1889 B
A review of the North American species of *Hippotherium*.
Proc. Amer. Philos. Soc., xxvi, pp. 429-458, with 3 pls.
- 1889 C
The mechanical causes of the development of the hard parts of the *Mammalia*.
Jour. Morphology, lili, pp. 137-277, with pls. ix-xiv, and 93 cuts in the text.
- 1889 D
The *Batrachia* of North America.
Bull. U. S. Nat. Mus. No. 34, Washington D. C., 1889, pp. 1-625; pls. 1-lxxxvi.
A work on the living *Batrachia* of N. America.
- 1889 E
Catalogue of fossil *Reptilia* and *Batrachia* of the British Museum, pt. i, by Dr. Lydekker.
Amer. Naturalist, xxlii, p. 43.
A review.
- 1889 F
The vertebrate fauna of the Equus beds.
Amer. Naturalist, xxlii, pp. 160-165, February, not of March.
List of species found in the different localities and descriptions of *Alces brevitrabalis*, *A. semipalmatus*, and *Caracus ensifer*.
- 1889 G
The *Artiodactyla*.
Amer. Naturalist, xxlii, pp. 111-136; pls. iii-vii; woodcuts in the text, 7-21.
Conclusion of Cope, E. D. 1888 X. The pagination is that for March, not that for February.
- 1889 H
Brongniart and Doederlein on *Xenacanthini*.
Amer. Naturalist, xxlii, pp. 149-150.
- 1889 I
The *Vertebrata* of the Swift Current River. II.
Amer. Naturalist, xxlii, pp. 151-155.
Genus *Haplacodon* established for *Menodus angustigenis*, *Anchitherium weeloni*, *Hypertragalus transversus*, *Leptomeryx caucatus*, *L. mamifer*, and *L. semicinctus* described.
- Cope, E. D.—Continued.** 1889 J
The *Proboscidea*.
Amer. Naturalist, xxlii, pp. 191-211; 9 woodcuts; pls. ix-xvi.
Largely reproduced in Geological Magazine of London (3), vol. vi, 1889, pp. 438-448.
- 1889 K
An intermediate Pliocene fauna.
Amer. Naturalist, xxlii, pp. 253-254.
A short list of fossil vertebrates found in a lake deposit in Oregon, and a description of *Hippotherium relictum*.
- 1889 L
Marsh on Cretaceous mammals.
Amer. Naturalist, xxlii, pp. 490-491.
Review of Marsh, O. C. 1889 D and Marsh, O. C. 1889 F.
- 1889 M
On a species of *Platylarchus* from Oregon.
Amer. Naturalist, xxlii, pp. 625-626.
Description of *P. septemspinatus*.
- 1889 N
On a new genus of Triassic *Dinosauria*.
Amer. Naturalist, xxlii, p. 626.
Genus *Oxolophysis* established for *Oxolurus longicollis*, *C. bauri*, and *C. willistoni*.
- 1889 O
Vertebrata of Swift Current River. No. III.
Amer. Naturalist, xxlii, pp. 628-629.
- 1889 P
The *Edentata* of North America.
Amer. Naturalist, xxlii, pp. 657-664, with pls. xxxi, xxxii and 2 woodcuts in the text.
- 1889 Q
The horned *Dinosauria* of the Laramie.
Amer. Naturalist, xxlii, pp. 715-717, pls. xxxiii, xxxiv.
Descriptions of *Monoclonius recurvirostris*, *M. sphenoceros*, and *M. assue*.
- 1889 R
Synopsis of the families of *Vertebrata*.
Amer. Naturalist, xxlii, pp. 849-877.
- 1889 S
The Silver Lake of Oregon and its region.
Amer. Naturalist, xxlii, pp. 970-982.
Contains a list of the fossil vertebrates of the region.
- 1889 T
Notes on the *Dinosauria* of the Laramie.
Amer. Naturalist, xxlii, pp. 904-906.
Describes *Pteropelyx grallipes*, gen. et spec. nov., and *Diclonius pentagonus*.

Cope, E. D.—Continued. 1889 U
Mr. Lydekker on *Phenacodus* and the
Atheca.
Nature, xl, p. 298.

— 1890 A
A. Smith Woodward on *Cœlorhynchus*
Agassiz.

Amer. Naturalist, xxiv, pp. 165-166.

— 1890 B
The homologies of the fins of fishes.
Amer. Naturalist, xxiv, pp. 401-423, pls. xiv-
xviii, and 9 woodcuts in the text.

— 1890 C
Scott and Osborn on the fauna of the
Browns Park Eocene.
Amer. Naturalist, xxiv, pp. 470-472.
Review of Scott and Osborn 1890 A.

— 1890 D
[Note on teeth mentioned by Profes-
sor Marsh.]
Amer. Naturalist, xxiv, p. 571.

— 1890 E
The *Cetacea*.
Amer. Naturalist, xxiv, pp. 599-616, pls. xx-
xxiii, and 8 wood cuts in the text.
Besides the general account of the order
there is a list of North American fossil *Cetacea*.

— 1890 F
The extinct *Sirenia*.
Amer. Naturalist, xxiv, pp. 697-702, with pls.
xxv, xxvi, and 3 wood cuts in the text.

— 1890 G
Note on *Castoroides georgiensis* Moore.
Amer. Naturalist, xxiv, p. 772.
Refers the tooth to *Hippopotamus amphibius*.

— 1890 H
Newberry's paleozoic fishes of North
America.
Amer. Naturalist, xxiv, pp. 844-847.
Review of Newberry, J. C. 1889 A.

— 1890 I
On two new species of *Mustelidæ* from
the Loup Fork Miocene of Nebraska.
Amer. Naturalist, xxiv, pp. 950-952.
Describes *Stenogale robusta* and *Brachygastris*
pachycephalus.

— 1890 J
On a new dog from the Loup Fork
Miocene.
Amer. Naturalist, xxiv, pp. 1067-1068.
Describes *Æurodon compressus*.

— 1891 A
On *Vertebrata* from the Tertiary and
Cretaceous rocks of the Northwest Ter-
ritory. I. The species from the Oligo-

Bull. 179—5

Cope, E. D.—Continued.
cene or Lower Miocene beds of the
Cypress Hills.
Geol. Surv. Canada. Contributions to Cana-
dian Palæontology, iii, pp. 1; 1-25, with pls.
1-xiv.

— 1891 B
On the characters of some paleozoic
fishes. I. On a new Elasmobranch from
the Permian; *Styptobasis knightiana* gen.
etspec. nov., fig 1. II. On new ichthy-
odorulites; *Hybodus regularis*, sp. nov.,
fig. 2; *Ctenacanthus amblyxiphias*, sp.
nov., fig. 3. III. On the cranial struc-
ture of *Macropetalichthys*. IV. On the
pectoral limb of the genus *Holoneima*,
Newb. V. On the paired fins of *Mega-*
lichthys nitidus, Cope. VI. On the non-
actinopterygian Teleostomi. VII. On
new species of *Platysomidæ*, *Platysomus*
palmaris and *P. lacorivianus*.
Proc. U. S. Nat. Museum, xiv, pp. 447-463,
pls. xxviii-xxxiii.

— 1891 C
On the structure of certain paleozoic
fishes.
Proc. Amer. Assoc. Adv. Science, 39th meet-
ing, Indianapolis, 1890, p. 336.
Abstract of paper describing *Macropetalich-*
thys, *Megalichthys nitidus*, a species of *Platyso-*
mus, and a species of *Dendrodus*.

— 1891 D
On two new Perissodactyls from the
White River Neocene.
Amer. Naturalist, xxv, pp. 47-49,
Describes *Menodus peltoceras* and *Cenopus*
simplicidens.

— 1891 E
On the non-actinopterygian *Teleo-*
stomi.
Amer. Naturalist, xxv, pp. 479-481.

— 1891 F
Catalogue of fossil *Reptilia* and *Ba-*
trachia (*Amphibia*) in the British Mu-
seum. Parts II, III, and IV.
Amer. Naturalist, xxv, pp. 644-646.
A review of the above works of Dr. R.
Lydekker.

— 1891 G
A. S. Woodward's Fossil fishes.
Amer. Naturalist, xxv, pp. 646-647.
An editorial notice of A. D. Woodward's
Catalogue of fossil fishes in the British Mu-
seum.

Cope, E. D.—Continued. 1891 H
On some new fishes from South Dakota.

Amer. Naturalist, xxv, pp. 654-658.
Describes three new genera (*Gephyura*, *Probalostomus* and *Oligoplarchus*, and five new species.

1891 I
Boulenger on *Rhynchocephalia*, *Tes-
tudinata*, and *Crocodylia*.
Amer. Naturalist, xxv, pp. 813-814.

1891 J
On the skull of the *Equus excelsus*,
Leidy, from the Equus beds of Texas.
Amer. Naturalist, xxv, pp. 912-913.

1891 K
The California cave bear.
Amer. Naturalist, xxv, pp. 997-999, with pl.
xxi.

1891 L
Flower and Lydekker's mammals.
Amer. Naturalist, xxv, pp. 1116-1118.
A review of the above authors' work on
mammals.

1891 M
Discovery of fish remains in Ordovic-
ian rocks.
Amer. Naturalist, xxv, p. 137.
A brief editorial note regarding C. D. Wal-
cott's discovery of fish remains in Colorado.

1891 N
Syllabus of lectures on geology and
paleontology.
Pp. 1-90, with 60 figs. in the text. Philadel-
phia, 1891.

1892 A
In the Texas Panhandle.
Amer. Geologist, x, pp. 131-132.

1892 B
On a new horizon of fossil fishes.
Proc. Amer. Assoc. Adv. Sci., 40th meeting,
Washington, 1891, p. 285.
Abstract of paper regarding fishes described
from South Dakota in Amer. Naturalist, 1891,
p. 654.

1892 C
On the cranial characters of *Equus
excelsus*.
Proc. Amer. Assoc. Adv. Sci., 40th meeting,
Washington, 1891, p. 285. Abstract.

1892 D
On a new form of *Marsupialia* from
the Laramie formation.
Proc. Amer. Assoc. Adv. Sci., 41st meeting,
Rochester, 1892, p. 177.
Describes genus *Thiaodon*.

Cope, E. D.—Continued. F 1892
Report on the paleontology of the
Vertebrata [of Texas].
Geol. Surv. of Texas, 3d annual report, for
1891. Austin, 1892; pp. 251-259.

1892 F
The osteology of the *Lacertilia*.
Proc. Amer. Philos. Soc., xxx, pp. 185-221,
with pls. II-vi.

1892 G
A contribution to a knowledge of the
fauna of the Blanco beds of Texas.
Proc. Acad. Nat. Sci. Phila., 1892, pp. 226-229.

1892 H
On the permanent and temporary
dentitions of certain three-toed horses.
Proc. Acad. Nat. Sci. Phila., 1892, pp. 325-326.

1892 I
A hyena and other *Carnivora* from
Texas.
Proc. Acad. Nat. Sci. Phila., 1892, pp. 326-327.

1892 J
A contribution to the vertebrate pa-
leontology of Texas.
Proc. Amer. Philos. Soc., xxx, pp. 123-131.

1892 K
On the skull of the dinosaurian *Ix-
laps incassatus* Cope.
Proc. Amer. Philos. Soc., xxx, pp. 240-245.

1892 L
On some new and little known Pale-
ozoic vertebrates.
Proc. Amer. Philos. Soc., xxx, pp. 221-229,
with pls. VII and VIII.

1892 M
On some points in the kinetogenesis
of limbs.
Proc. Amer. Phil. Soc., xxx, pp. 282-285.

1892 N
On the phylogeny of the *Vertebrata*.
Proc. Amer. Philos. Soc., xxx, pp. 278-279,
with 2 figs. in the text.

1892 O
Remarks on the communication
"Ein fossiler Giftzahn," by Dr. F.
Kinkelin.
Zoolog. Anzeiger, xv, p. 224.
Refers to discoveries of the poison-fangs of
serpents earlier than Kinkelin's.

1892 P
The age of the staked plains of Texas.
Amer. Nat., xxvi, pp. 49-50.
Refers to occurrence of *Equus simplicidens*,
Mastodon, and *Testudo turgida*.

- Cope, E. D.—Continued.** 1892 Q
Fossil Vertebrata.
 Amer. Nat., xxvi, pp. 89-91.
 Abstract of paper read before the American Society of Naturalists at Philadelphia, Dec., 1891.
- 1892 R
The homologies of the cranial arches of the *Reptilia*.
 Amer. Nat., xxvi, pp. 407-409, with pls. xv-xvii.
 Abstract of paper read before U. S. Nat. Acad. Sciences, Apr. 19, 1892. Full paper in Trans. Amer. Philos. Soc., 1892, pp. 11-16.
- 1892 S
Professor Marsh on extinct horses and other mammals.
 Amer. Naturalist, xxvi, pp. 410-412.
 Review of Marsh, O. C. 1892 C, and Marsh, O. C. 1892 D.
- 1892 T
Fourth note on the *Dinosauria* of the Laramie.
 Amer. Naturalist, xxvi, pp. 756-758.
- 1892 U
On a new genus of *Mammalia* from the Laramie formation.
 Amer. Naturalist, xxvi, pp. 758-762; pl. xxii.
 Describes *Thiaodon padanicus*, belonging to new family *Thiaodontidae*.
- 1892 V
Crook on *Sauroidontidae* from Kansas.
 Amer. Naturalist, xxvi, pp. 941-942.
 Notice of Crook, A. R. 1892 A.
- 1892 W
On the permanent and temporary dentitions of certain three-toed horses.
 Amer. Naturalist, xxvi, pp. 942-944, pls. xxv, xxvi.
- 1892 X
American Devonian fishes found in Belgium.
 Amer. Naturalist, xxvi, p. 1025.
 Notice of paper by M. Lohest in Ann. Soc. Geol. de Belgique, xvi, p. lvii.
- 1892 Y
A Hyena and other *Carnivora* from Texas.
 Amer. Naturalist, xxvi, pp. 1028-1029.
 Describes *Borophagus diversidens*, *Canimartes cummingsii*, and *Felis hillianus*.
- 1892 Z
On the homologies of the posterior cranial arches in the *Reptilia*.
 Trans. Amer. Philos. Soc., xvii, pp. 11-26; with pls. 1-v.
- Cope, E. D.—Continued.** 1892 AA
Vertebrate fauna of the Alachua clays, Florida.
 Bull. U. S. Geol. Surv., No. 84, Correlation papers, Neocene, p. 130.
- 1892 BB
The fauna of the Blanco epoch.
 Amer. Naturalist, xxvi, pp. 1058-1059.
- 1893 A
A preliminary report on the vertebrate paleontology of the Llano Estacado.
 From 4th Annual Report of the Geological Survey of Texas, pp. 1-136; pls. 1-xxviii.
 Notice of, in Amer. Naturalist, vol. xxvii, pp. 811-812.
- 1893 B
A new extinct species of *Cyprinidae*.
 Proc. Acad. Nat. Sci. Phila., 1893, pp. 19-20.
 Describes *Aphrichthys lindahli* from Illinois.
- 1893 C
Description of the lower jaw of *Tetralodon shepardii*.
 Proc. Acad. Nat. Sci. Phila., 1893, pp. 202-204.
- 1893 D
Fossil fishes from British Columbia.
 Proc. Acad. Nat. Sci. Phila., 1893, pp. 401-402.
- 1893 E
On the genus *Tomiopsis*.
 Proc. Amer. Philos. Soc. xxxi, pp. 317-318.
- 1893 F
Kansas pterodactyls.
 Amer. Naturalist, xxvii, p. 37.
 A notice of a paper on the subject by Professor Williston, in, Kansas Univ. Quarterly, July, 1892.
- 1893 G
A remarkable artiodactyle from the White River epoch.
 Amer. Naturalist, xxvii, pp. 147-148, pl. i, ii.
 Notice of paper Osborn and Wortman 1892 B.
- 1893 H
Earle on the species of *Coryphodontidae*.
 Amer. Naturalist, xxvii, pp. 250-252.
 Review of Earle, Charles, 1892 A.
- 1893 I
The vertebrate fauna of the Ordovician of Colorado.
 Amer. Naturalist, xxvii, pp. 268-269.
 Notice of discoveries of fish remains by C. D. Walcott.
- 1893 J
The genealogy of man.
 Amer. Naturalist, xxvii, pp. 321-335, pl. ix, and 9 figs. in the text.

- Cope, E. D.—Continued.** 1893 K
A new Pleistocene saber-tooth.
Amer. Naturalist, xxvii, pp. 896-897.
Describes *Dinobastis serus*.
-
- 1893 L
On *Symmorium* and the position of
the cladodont sharks.
Amer. Naturalist, xxvii, pp. 999-1001.
-
- 1893 M
Forsyth Major, and Röse on the
theory of dental evolution.
Amer. Naturalist, xxvii, pp. 1014-1016.
-
- 1893 N
Fritsch's Fauna of the Gaskohle of
Bohemia.
Amer. Naturalist, xxvii, pp. 1079-1081, with
pls. xix, xx, and 1 fig. in the text.
One plate and the text figure illustrate *Xenacanthus decheni*.
-
- 1893 O
Cladodont sharks of the Cleveland
shale.
Amer. Naturalist, xxvii, p. 1083.
An editorial notice of Professor Claypole's
paper in Amer. Geologist for May, 1893.
-
- 1893 P
Geology and paleontology, Cenozoic.
Amer. Naturalist, xxvii, p. 473, with pl. xli.
Announces exhibition of mandible of *Tetralodon shepardii* and proposal of *Mastodon oligobunus*.
-
- 1893 Q
The vertebrate paleontology of the
Llano Estacado.
Amer. Naturalist, xxvii, pp. 811, 812.
A notice of the author's report (Cope, E. D.
1893 A), on the palæontology of Texas.
-
- 1893 R
Cary on evolution of foot structure.
Amer. Naturalist, xxvii, pp. 248-250.
-
- 1894 A
Observations on the geology of adja-
cent parts of Oklahoma and northwest
Texas.
Proc. Acad. Nat. Sci. Phila., 1894, pp. 63-68.
-
- 1894 B
On the structure of the skull in the
plesiosaurian *Reptilia* and on two new
species from the upper Cretaceous.
Proc. Amer. Philos. Soc., xxxiii, pp. 109-113,
with pl. x and 1 fig. in the text.
Describes *Embaphias circulosus* gen. et sp.
nov. and *Elamosaurus intermedius*.
-
- 1894 C
Seeley on the fossil reptiles: II. *Parieasaurus*; VI. The *Anomodontia* and

- Cope, E. D.—Continued.**
their allies; VII. Further observations
on *Parieasaurus*.
Amer. Naturalist, xxviii, pp. 788-790.
A review of Seeley's papers on the above-sub-
jects in Philos. Trans. Roy. Soc., 1888, 1889.
-
- 1894 D
Scott on the *Mammalia* of the Deep
River Beds.
Amer. Naturalist, xxviii, pp. 790-791.
A review of Scott's memoir in Trans. Amer.
Philos. Soc., xviii, pp. 55-184.
-
- 1894 E
Marsh on Tertiary *Artiodactyla*.
Amer. Naturalist, xxviii, pp. 867-869.
A review of Marsh, O. C. 1894 K.
-
- 1894 F
New and little known Paleozoic and
Mesozoic fishes.
Jour. Acad. Nat. Sci. Phila., (2), ix, pp. 427-
448; pls. xviii-xx, with 5 figs. in the text.
-
- 1894 G
On *Cyphornis*, an extinct genus of
birds.
Jour. Acad. Nat. Sci. Phila., (2), ix, pp. 449-
452; pl. xx, 11-16.
Describes *Cyphornis magnus*, gen. et sp. nov.,
from Vancouvers Island.
-
- 1894 H
Extinct *Bovidae*, *Canidae*, and *Felidae*
from the Pleistocene of the Plains.
Jour. Acad. Nat. Sci. Phila., (2), ix, pp. 453-
459; pls. xxi-xxii.
-
- 1894 I
Schlosser on American Eocene *Ver-
tebrata* in Europe.
Amer. Naturalist, xxviii, pp. 504-505.
A review of Schlosser 1894 A.
-
- 1895 A
Fourth contribution to the marine
fauna of the Miocene period of the
United States.
Proc. Amer. Philos. Soc., xxxiv, pp. 135-155,
with pl. vi.
Note on, in Amer. Naturalist, vol. xxix,
p. 572.
-
- 1895 B
Dean on coprolites.
Amer. Naturalist, xxix, p. 159.
Remarks on Bashford Dean's paper in Trans.
N. Y. Acad. Sci., vol. xlii, 1894.
-
- 1895 C
Baur on the temporal part of the
skull, and on the morphology of the
skull in the *Mosasauridae*.
Amer. Naturalist, xxix, pp. 558-559; pl. xxxi.
Review of Baur's papers in Anatomischer
Anzeiger, x, p. 316, and Amer. Jour. Morphol-
ogy, 1894, p. 1.

- Cope, E. D.—Continued.** 1895 D
A batrachian armadillo.
Amer. Naturalist, xxix, p. 998.
Description of *Dissorophus multicinctus*.
- 1895 E
Reply to Dr. Baur's critique on my paper on the paroccipital bone of the scaled reptiles and the systematic position of the *Pythonomorpha*.
Amer. Naturalist, xxix, pp. 1008-1005.
- 1895 F
The fossil vertebrates from the fissure at Port Kennedy, Pa.
Proc. Acad. Nat. Sci. Phila., 1896, pp. 446-451.
- 1895 G
The antiquity of man in North America.
Amer. Naturalist, xxix, pp. 593-599.
Discusses the occurrence of various mammals in caves and other Pleistocene deposits.
- 1895 H
Taylor on box tortoises.
Amer. Naturalist, xxix, pp. 756-757.
Subdivides the genus *Terrapene* into various genera, among which is *Toxaspis*.
- 1896 A
Criticism of Dr. Baur's rejoinder on the homologies of the paroccipital bone, etc.
Amer. Naturalist, xxx, pp. 147-149, with 2 figs. in the text.
- 1896 B
Boulenger on the difference between *Lacertilia* and *Ophidia*; and on the *Apoda*.
Amer. Naturalist, xxx, pp. 149-152.
- 1896 C
The Paleozoic reptilian order *Cotylosauria*.
Amer. Naturalist, xxx, pp. 301-304, with pl. vii a.
Describes *Pariotichus aguti*.
- 1896 D
The ancestry of the *Testudinata*.
Amer. Naturalist, xxx, pp. 396-400.
Describes new family *Otocalidae*, new genera *Otocalus* and *Conodectes*, and new species *O. testudineus* and *C. favosus*.
- 1896 E
Permian land *Vertebrata* with carapaces.
Amer. Naturalist, xxx, pp. 936-937, with pls. xxi, xxli.
Descriptions and figures of *Otocalus testudineus* and *Dissorophus articulatus*.
- 1896 F
New and little known *Mammalia* from the Port Kennedy bone deposit.
Proc. Acad. Nat. Sci. Phila., 1896, pp. 378-394.
- Cope, E. D.—Continued.** 1896 G
The reptilian order *Cotylosauria*.
Proc. Amer. Philos. Soc., xxxiv, pp. 436-457, with pls. vii-ix.
Besides the *Cotylosauria*, some new *Batrachia* from the Permian beds of Texas are described in a supplement, pp. 452-457.
- 1896 H
On some Pleistocene *Mammalia* from Petite Anse, La.
Proc. Amer. Philos. Soc., xxxiv, pp. 458-468, with pls. x-xlii.
- 1896 I
Second contribution to the history of the *Cotylosauria*.
Proc. Amer. Philos. Soc., xxxv, pp. 122-139, with pls. vii-x.
Included in this paper is an "Appendix on a species of *Trimerorhachia*." The paper is a continuation of Cope, 1896 G.
- 1896 J
Sixth contribution to the knowledge of the marine Miocene fauna of North America.
Proc. Amer. Philos. Soc., xxxv, pp. 139-146, with pl. xi, xlii.
- 1897 A
Recent papers relating to vertebrate paleontology.
Amer. Naturalist, xxxi, pp. 315-323.
A notice of papers by Baur, Baur and Case, Goette, Hay, Wortman, and Marsh.
- 1897 B
The position of the *Periptychidae*.
Amer. Naturalist, xxxi, pp. 335-336.
Reviewed by M. Schlosser, Neues Jahrb. Min., 1901, i, p. 149.
- 1897 C
On new Paleozoic *Vertebrata* from Illinois, Ohio, and Pennsylvania.
Proc. Amer. Philos. Soc., xxxvi, pp. 71-90, with pls. i-iii.
- 1898 A
[A communication written Oct. 28, 1870, to Prof. B. F. Mudge.]
The University Geological Survey of Kansas, iv, pp. 29-30.
This letter, now first published, refers to a collection of fossils which had been submitted to Prof. Cope for examination.
- 1898 B
Syllabus of lectures on the *Vertebrata*.
Philadelphia, 1898. 8 vo., pp. 1-135, with portrait of the author and 66 figs. in the text; preceded by an essay by Dr. H. F. Osborn on "The life and works of Cope."
- 1899 A
Vertebrate remains from Port Kennedy bone deposit.
Jour. Acad. Nat. Sci. Phila., (2), xi, pp. 193-267, with pls. xviii-xxi.

- Cope, E. D.**—Continued. 1900 A
The crocodilians, lizards, and snakes
of North America.
Ann. Report Smithson. Inst. for 1898, U. S.
Nat. Museum, part II, pp. 153-1270, with pls.
1-xxxv and 347 figs. in the text.
- Cope, E. D., and Wortman, J. L.** 1884 A
Post-pliocene vertebrates of Indiana.
14th Report State Geologist of Indiana,
pt. II, pp. 1-62, with pls. 1-vi.
- Cornevin, Charles.** 1882 A
Nouveaux cas de didactylie chez le
cheval et interprétation de la polydacty-
lie des Équidés en général.
Assoc. Française pour l'avancement des
Sciences, 10e session, Alger, 1881, pp. 669-675.
- Cornuel, J.** 1877 A
Description de débris de poissons
fossiles provenant principalement du
calcaire néocomien du département de
la Haute Marne.
Bull. Soc. Géol. France (3), v, pp. 604-626,
with pl. xi.
- Cottle, Thomas.** 1852 A
Fossil *Pachydermata* in Canada.
Ann. and Mag. Nat. Hist. (2), x, pp. 395-396.
Records the finding of bones and tusk of
Elephas primigenius, Burlington Heights, near
head of Lake Ontario.
- 1853 A
On fossil *Pachydermata* in Canada.
Amer. Jour. Sci. (2), xv, pp. 282-283.
Taken from Ann. and Mag. Nat. Hist. (2), x,
395.
- Coues, Elliott.** 1866 A
The osteology of the *Colymbus tor-
quatus*, with notes on its myology.
Memoirs Bost. Soc. Nat. Hist., I, pp. 131-172,
with pl. v.
- 1869 A
The great auk.
Amer. Naturalist, IV, p. 57.
- 1872 A
Osteology and myology of *Didelphys
virginiana*.
Memoirs Bost. Soc. Nat. Hist., II, pp. 41-149,
with 35 figs. in the text.
- 1872 B
Key to North American birds.
Pp. 1-361, with 6 pls. and 238 figs. in the text.
A synopsis of the fossil forms of North Amer-
ican birds is given on pp. 347-350.
- 1875 A
On the cranial and dental characters
of *Mephitis*, with descriptions of *Me-
phitis frontata* n. sp. foss.
Bull. U. S. Geol. and Geog. Surv. Terr., 2d
ser., No. 1, pp. 7-15.
- Coues, Elliott**—Continued. 1875 B
A critical review of the North Ameri-
can *Sacomys*.
Proc. Acad. Nat. Sci. Phila., xxvii, pp. 272-
327.
- 1875 C
Synopsis of the *Geomyidae*.
Proc. Acad. Nat. Sci. Phila., xxvii, pp. 130-
138.
- 1876 A
Some account, critical, descriptive,
and historical, of *Zapus hudsonius*.
Bull. U. S. Geol. and Geog. Surv. Terr. (Hay-
den), I, ser. 2, No. 5, pp. 253-262.
Gives full synonymy and dental and cranial
characters.
- 1877 A
Fur-bearing animals; a monograph
of the North American *Mustelidae*.
Miscellaneous pub., No. 8, U. S. Geol. and
Geog. Surv., under F. V. Hayden, pp. 1-xiv;
1-348, with pls. 1-xx.
- 1877 B
Monographs of North American *Ro-
dentia*.
Report U. S. Geol. and Geog. Surv. Terr., F.V.
Hayden, U. S. geologist in charge, vol. xi.
No. I, *Muridae*, pp. 1-264, with pls. 1-v; No.
vii, *Zapodidae*, pp. 455-479; No. viii, *Sacomys*,
idae, pp. 481-542; No. x, *Geomyidae*, pp. 601-630.
- 1878 A
On consolidation of the hoofs in the
Virginian deer.
Bull. U. S. Geol. and Geog. Surv. Terr., 1878,
IV, pp. 293-294.
- 1878 B
On a breed of solid-hoofed pigs ap-
parently established in Texas.
Bull. U. S. Geol. and Geog. Surv. Terr., 1878,
IV, pp. 295-297.
- 1884 A
Key to North American birds. 2d
edition.
Pp. 1-xxx; 1-863, with 561 figs. in the text.
Part II of this work contains an excellent
account of the anatomy of birds, including the
osteology. Part IV is a "Systematic Synopsis
of the Fossil Birds of America." This synopsis
has remained unchanged in the 3d and 4th
editions and the various reissues of these up to
1896.
See also Gill and Coues.
- Couper, J. Hamilton.** 1842 A
Letter regarding fossil bones found
in Georgia.
Proc. Acad. Nat. Sci. Phila., I, pp. 216-217.
Records finding of bones of *Megatherium*,
Mastodon, a species of *Bos*, etc. A list of these
bones is found on page 190 of the same volume.

Couper, J. Hamilton—Continued.See note under **Hodson W. B.** 1846 A.**Cox, E. T.** 1874 A*Colletosaurus indianaensis* Cox.

Fifth Ann. Rep. Geol. Surv. Indiana, made during the year 1873, pp. 247-248, with 1 pl.

Cragin, F. W. 1888 A

Preliminary description of a new or little known saurian from the Benton of Kansas.

Amer. Geologist, II, pp. 404-407.

Trinacromerum bentonianum is described.

1891 A

New observations on the genus *Trinacromerum*.

Amer. Geologist, VIII, pp. 171-174.

1892 A

Observations on llama remains from Colorado and Kansas.

Amer. Geologist, IX, pp. 257-260.

1892 B

A new saber-toothed tiger from the Loup Fork Tertiary of Kansas.

Science, XIX, p. 17.

Describes *Machærodus crassidens*.

1894 A

Vertebrates from the Neocomian shales of Kansas.

Colorado College Studies, V, pp. 69-73, pls. I, II.

Describes as new species *Plesiosaurus mudgeti*, *Plesiochelys belvidereensis*, *Lamna ? quinquelatalis*, and *Hybodus clarkensis*.

1896 A

Preliminary notice of three late Neocene terranes of Kansas.

Colorado College Studies, VI, pp. 53-54.

Records finding of various vertebrate remains, among which are named *Elephas imperator* (?), *Megalonyx leidyi*, *Equus complicatus*, *E. curridens*, *Auchenia huerfanensis*.

1899 A

Goat-antelope from the cave fauna of Pikes Peak region.

Bull. Geol. Soc. Amer., XI, pp. 610-612, with pl. LVII.

Presents a description of *Nemorhædus palmeri* Crag.

1900 A

The capricorns, mammals of an Asiatic type, former inhabitants of the Pikes Peak region.

Colorado College Studies, VIII, pp. 1-6, with 1 text fig.

A popular account of *Nemorhædus palmeri* Crag.**Cramer, Frank.**

1895 A

On the cranial characters of the genus *Sebastodes*.

Proc. California Acad. Sci. (2), V, pp. 573-610, with pls. LVII-LXX.

The plates consist of drawings of skulls of the different species.

Credner, Hermann.

1870 A

Die Kreide von New Jersey.

Zeitschrift deutsch. geol. Gesellschaft, XXII, pp. 191-251, with map.

Mentions occurrence of *Odontus appendiculatus*, *Corax heterodon*, *Oxyrhina mantelli*, *Lamna texana*, *Coprolithus (Macropoma) mantelli*, *Hyposaurus rogersi*, *Hadrosaurus foulkii*, and *Mosasaurus mitchelli*.

1881 A

Die Stegocephalen (Labyrinthodonten) aus dem Rothliegenden des Plauen'schen Grundes bei Dresden.

Zeitschr. deutsch. geol. Gesellsch., XXXIII; Erster Theil, pp. 298-330, pls. XV-XVII; Zweiter Theil, pp. 574-603, pls. XXII-XXIV. Describes

Branchiosaurus.

1881 B

Ueber einige Stegocephalen (Labyrinthodonten) aus dem sächsischen Rothliegenden.

Sitzungsber. naturf. Gesellsch. Leipzig, 1881, pp. 1-7.

Contains some remarks on *Branchiosaurus*.

1882 A

Die Stegocephalen aus dem Rothliegenden des Plauen'schen Grundes bei Dresden; III Theil.

Zeitschr. deutsch. geol. Gesellsch., XXXIV, pp. 213-237, with pls. XII, XIII.

Describes *Pelosaurus* and *Archegosaurus*.

1883 A

Die Stegocephalen aus dem Rothliegenden des Plauen'schen Grundes bei Dresden; IV Theil.

Zeitschr. deutsch. geol. Gesellsch., XXXV, pp. 275-300, with pls. XI, XII.

1884 A

[Remarks on *Branchiosaurus amblystomus*.]

Zeitschr. deutsch. geol. Gesellsch., XXXVI, pp. 685-686.

Regards *Branchiosaurus* as equivalent to *Protriton*, but retains former name.

1885 A

Die Stegocephalen aus dem Rothliegenden des Plauen'schen Grundes bei Dresden.

Zeitschr. deutsch. geol. Gesellsch., XXXVII, pp. 694-736, with pls. XXVII-XXIX.

Treats of *Melanerpeton*, *Pelosaurus*, *Archegosaurus*, *Hylonomus*, etc.

Credner, Hermann—Continued. 1886 A

Die Stegocephalen aus dem Rothliegenden des Plauen'schen Grundes bei Dresden.

Zeitschr. der deutsch. geol. Gesellsch., xxxviii, pp. 576-632, with pls. xvi-xix and 13 figs. in the text.

Treats of the development of *Branchiosaurus*.

1887 A

Stegocephalen des Rothliegenden. Two plates, 70 by 90 cm., with "Erläuterungen zu den Wandtafeln; Stegocephalen des Rothliegenden."

Pp. 1-10, with 3 figs. in the text.

Presents illustrations of the structure of *Branchiosaurus*, *Pelosaurus*, and *Melanerpeton*.

1888 A

Die Stegocephalen und Saurier aus dem Rothliegenden des Plauen'schen Grundes bei Dresden; vii Theil; *Palæohatteria longicaudata* Crd.

Zeitschr. deutsch. geol. Gesellsch., xl, pp. 490-558, with pls. xxiv-xxvi and 24 text figs.

1889 A

Die Stegocephalen und Saurier aus dem Rothliegenden des Plauen'schen Grundes bei Dresden; viii Theil.

Kadaliosaurus priscus Cred.

Zeitschr. deutsch. geol. Gesellsch., xli, pp. 319-342, with pl. xv and 5 text figs.

1890 A

Die Stegocephalen und Saurier aus dem Rothliegenden des Plauen'schen Grundes bei Dresden; ix Theil.

Zeitschr. deutsch. geol. Gesellsch., xlii, pp. 240-277, with pls. ix-xi and 6 text figs.

Describes *Hylonomus* and *Petrobates*.

1893 A

Zur Histologie der Faltenzähne paläozoischer Stegocephalen.

Abhandl. math.-phys. Classe k. sächs. Gesellsch. Wissensch. Leipzig, xx, pp. 477-562, with pls. i-iv and 5 text figs.

This important paper treats of the histology of the genus *Sclerocephalus*.

Crook, Alja Robinson. 1892 A

Ueber einige fossile Knochenfische aus der mittleren Kreide von Kansas.

Palaeontographica, xxxix, pp. 107-124, with pls. xv-xviii.

Groom, H. B. 1835 A

Some account of the organic remains found in the marl pits of Lucas Ben-ners, esq., in Craven County, N. C.

Amer. Jour. Sci., xxvii, pp. 168-171.

Cunningham, John. 1839 A

An account of the footsteps of the *Chirotherium*.

Proc. Geol. Soc. Lond., iii, pp. 12-14.

Cunningham, Robt. O. 1871 A

Notes on some points in the osteology of *Rhea americana* and *Rhea darwini*.

Proc. Zool. Soc. Lond., 1871, pp. 106-110, with pls. vi and vi a.

Cuvier, Georges. 1799 A

Mémoire sur les espèces d'éléphants vivants et fossiles.

Mém. de l'Institut Nat. Sci. et Arts, ii, pp. 1-22, pls. ii-vi.

1804 A

Sur le *Mégalonix*, animal de la famille des Paresseux, mais de la taille de bœuf, dont les ossements ont été découverts en Virginie, en 1796.

Ann. Mus. d'Hist. Nat., v, pp. 358-376, with pl. xxiii.

1804 B

Sur le *Megatherium*, autre animal de la famille des Paresseux, mais de la taille du rhinocéros, dont un squelette fossile presque complet est conservé au cabinet royal d'histoire naturelle à Madrid.

Ann. Mus. d'Hist. Nat., v, pp. 376-387, with pls. xxiv, xxv.

1806 A

Sur les éléphants vivants et fossiles.

Ann. Mus. d'Hist. Nat., viii, pp. 1-58, 93-155, 249-269, with pls. xxxviii-xlv.

1806 B

Sur le grand mastodonte.

Ann. Mus. d'Hist. Nat., viii, pp. 270-312, with pls. xlii-xlvi.

1806 C

Sur différentes dents du genre des mastodontes, mais d'espèces moindres que celles de l'Ohio, trouvées en plusieurs lieux des deux continents.

Ann. Mus. d'Hist. Nat., viii, pp. 401-420, with pls. lxvi-lxix.

1808 A

Sur le grand animal des carrières de Maestricht.

Ann. Mus. d'Hist. Nat., Paris, xii, pp. 145-178, with pls. xviii, xix.

1808 B

Sur les os fossiles de ruminans trouvés dans les terrains meubles.

Ann. Mus. d'Hist. Nat., Paris, xii, pp. 333-398, with pls. xxxii-xxxiv.

Refers to and figures *Bison latifrons* under the name *Aurocha*.

- Cuvier, Georges**—Continued. 1834 A
Recherches sur les ossements fossiles, ou l'on rétablit les caractères de plusieurs animaux dont les révolutions du globe ont détruit les espèces.
 Fourth edition, Paris, 1834-1836, vols. 1-x, octavo, with 2 vols. quarto, containing 260 pls.
 First edition was published in 1812, second edition in 1821, third edition in 1825.
- Daily State Journal.** 1870 A
 Discovery of a mastodon.
 Amer. Jour. Sci. (2), 1, pp. 422-423.
 Extract from Daily State Journal, Springfield, Ill.
- Dall, William H.** 1869 A
 [Statement concerning the finding of the bones of musk ox, buffalo, and elephant near Yukon River.]
 Proc. Boston Soc. Nat. Hist., xlii, p. 136.
- 1873 A
 [Remarks on tusks and bones from Kotzebue Sound.]
 Proc. California Acad. Nat. Sci., iv, pp. 293-294.
- 1891 A
 Age of the Peace Creek bone beds of Florida.
 Proc. Acad. Nat. Sci. Phila., 1891, p. 121.
- Dames, W.** 1882 A
 On the structure of the head of *Archæopteryx*.
 Geol. Magazine (2) ix, pp. 566-568.
 See also Sitzungsber. k.-p. Akad. Wissensch. Berlin, Jahrg. 1882, pp. 817-819.
- 1883 A
 Ueber *Ancistrodon* Debey.
 Zeitschr. deutsch. geol. Gesellsch., xxxv, pp. 655-670, with pl. xix.
- 1883 B
 Ueber eine tertiäre Wirbelthierfauna von der westlichen Insel der Birket-el-Qurūn, im Fajcim (Aegypten).
 Sitzungsber. k.-p. Akad. Wissensch. Berlin, pp. 129-153, with pl. iii.
- 1884 A
 Entgegnung an Herrn Dr. Baur.
 Morpholog. Jahrbuch, x, pp. 603-612.
 Reply to Baur, G. 1884 B.
- 1884 B
 Ueber *Archæopteryx*.
 Palæontolog. Abhandl., ii, pp. 117-196 (1-80), with 1 pl. and 5 woodcuts.
- 1885 A
 [Review of A. von Koenen's "Beiträge zur Kenntniss der Placodermen des Norddeutschen Oberdevons," pub-
- Dames, W.**—Continued. 1885 A
 lished in Abhandlungen der k. Gesellsch. Wissensch. Göttingen, xxx, pp. 1-40.]
 Neues Jahrbuch Min., Geol., u. Palæont., 1885, i, Referate, pp. 97-98.
- 1887 A
 Ueber die Gattung *Saurodon*.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde Berlin, 1887, pp. 72-78.
- 1887 B
 Ueber *Titanichthys pharao*, nov. gen., nov. sp., aus der Kreideformation Aegyptens.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde Berlin, 1887, pp. 69-72, with 4 figs. in the text.
 Discusses systematic position of *Enchodus*.
- 1893 A
 Ueber das Vorkommen von Ichthyopterygiern im Tithon Argentiniens.
 Zeitschr. deutsch. geol. Gesellsch., xiv, pp. 23-33, with pl. i.
- 1894 A
 Die Chelonier der norddeutschen Tertiärformation.
 Palæontolog. Abhandl., vi, pp. 197-220, with pls. xxvi-xxix.
- 1894 B
 Ueber Zeuglodonten aus Aegypten und die Beziehungen der Archæoceten zu den übrigen Cetaceen. I, Beschreibung der Fossilreste; II, Vergleich der ägyptischen Zeuglodon-Reste mit denen anderer Gebiete; III, die Stellung der Zeuglodonten im System der Säugethiere; IV, Ueber den Hautpanzer der Zeuglodonten.
 Palæontolog. Abhandl. (2) 1 (v), pp. 1-36, with pls. i-vii (xxx-xxxvii).
- 1895 A
 Die Plesiosaurier der süddeutschen Liasformation.
 Abhandl. k. Akad. Wissensch. Berlin, 1895, phys.-math. Cl., Abhandl., ii, pp. 1-83, pls. i-v, and 4 figs. in the text.
- 1895 B
 Ueber die Ichthyopterygier der Triasformation.
 Sitz.-ber. k.-p. Akad. Wissensch. Berlin, 1895, pp. 1045-1050.
- 1897 A
 Ueber Brustbein, Schulter- und Beckengürtel der *Archæopteryx*.
 Sitz.-ber. k.-p. Akad. Wissensch. zu Berlin, 1897, pp. 813-834, with 3 figs. in the text.

Dana, E. S.

See **Grinnell** and **Dana**.

Dana, James D. 1875 A

On Dr. Koch's evidence with regard to the contemporaneity of man and the mastodon in Missouri.

Amer. Jour. Sci. (3), ix, pp. 335-346.

1875 B

Supplement to the article on Dr. Koch's evidence with regard to the contemporaneity of man and the mastodon.

Amer. Jour. Sci. (3), ix, p. 398.

1875 C

Reindeers in southern New England.

Amer. Jour. Sci. (3), x, pp. 353-357.

1876 A

The *Vertebrata* of the Cretaceous formations of the West, by E. D. Cope.

Amer. Jour. Sci. (3), xi, pp. 65-66.

Notice and criticism of Professor Cope's work.

1879 A

Review of J. D. Whitney's "Auriferous Gravels of the Sierra Nevada and California."

Amer. Jour. Sci. (3), xviii, 233-234.

1888 A

Notice of Dr. J. S. Newberry's "Descriptions of new fossil fishes," published in Trans. N. Y. Academy of Sciences, vol. vi.

Amer. Jour. Sci. (3), xxxv, p. 498.

1896 A

Manual of Geology; treating of the principles of the science with special reference to American geological history, etc.

Fourth edition, pp. 1-1087, with over 1,575 figs. in the text and 2 double-page maps. The first edition of this work was published in 1863; the second, 1876; the third, 1880.

Darèste, Camille.

1849 A

Observations sur l'ostéologie du poisson appelé Triodon macroptère.

Ann. Sci. Naturelles (3), xii, pp. 68-83, with pl. i.

1872 A

Études sur les types ostéologiques des poissons osseux.

Comptes rend. Acad. Paris, lxxv, pp. 942-946; 1018-1021; 1086-1089; 1172-1175; 1253-1256.

Davidoff, M.

1880 A

Ueber das Skelett der hinteren Gliedmasse der *Ganoidei holostei* und der physostomen Knochenfische.

Morpholog. Jahrbuch, vi, pp. 125-128.

Davidoff, M.—Continued.

1880 B

Beiträge zur vergleichenden Anatomie der hinteren Gliedmasse der Fische.

Morpholog. Jahrbuch, vi, pp. 433-468, with pls. xxi-xxiii.

Discusses the structure of the ventral fins of the Ganoidei and Physostomi.

1883 A

Beiträge zur vergleichenden Anatomie der hinteren Gliedmasse der Fische. III Theil, *Ceratodus*.

Morpholog. Jahrbuch, ix, pp. 117-162, with pls. viii and ix.

Davies, A. M.

See **Howes** and **Davies**.

Davies, William.

1872 A

On the rostral prolongations of *Squaloraia polyspondyla*, Ag.

Geol. Magazine (1), ix, pp. 145-150, with pl. iv.

1878 A

On the nomenclature of *Sauropschilus lanciformis* of the British Cretaceous deposits, with description and figures of a new species (*S. woodwardii*).

Geol. Magazine, (2), v, pp. 254-262, with pl. viii.

1886 A

A note on Professor Cope's "*Edentus* and *Pelecopteris*," etc.

Geol. Magazine (3), iii, pp. 141-142.

A reply to a note by Professor Cope which appears on p. 141 of the same volume.

Davis, Chas. H. S.

1887 A

The *Cutopertus gracilis*.

Trans. Sci. Assoc. Meriden, Conn., ii, pp. 21-22, with 1 fig. in the text.

Davis, James W.

1880 A

On the Teleostean affinities of the genus *Pleuracanthus*.

Ann. and Mag. Nat. Hist. (5), v, pp. 349-357.

1880 B

On the genus *Pleuracanthus*, Agass., including the genera *Orthacanthus*, Agass. and Goldfuss; *Diplodus*, Agass., and *Xenacanthus*, Beyr.

Quart. Jour. Geol. Soc., xxxvi, pp. 321-336, with pl. xii and 10 text figs.

1881 A

On the genera *Ctenoptychius*, Agassiz; *Ctenopetalus*, Agassiz; and *Harpacodus*, Agassiz.

Ann. and Mag. Nat. Hist. (5), viii, pp. 424-427.

- Davis, James W.**—Continued. 1882 A
On the zoological position of the genus *Petalorhynchus* Ag., a fossil fish from the Mountain limestone.
Report Brit. Assoc. Adv. Sci., 51st meeting, York, 1881, p. 646.
- 1882 B
Notes on the occurrence of fossil-fish remains in the Carboniferous limestone series of Yorkshire.
Proc. Yorkshire Geol. and Polytech. Soc. (2), viii, pp. 39-63.
- 1883 A
On the fossil fishes of the Carboniferous limestone series of Great Britain.
Trans. Roy. Dublin Soc. (2), i, pp. 327-548, with pls. xlii-lxv.
- 1885 A
Note on *Chlamydoselachus*.
Proc. Yorkshire Geol. and Polytech. Soc. (2), ix, pp. 98-113; with pl. xi.
Diplodus, *Didymodus*, *Pleuracanthus*, *Cladodus*.
- 1886 A
Notes on a collection of fossil-fish remains from the Mountain limestone of Derbyshire.
Geol. Magazine (3), iii, pp. 148-157.
Discusses relationship of *Xystrodus* to *Tymnodus*.
- 1887 A
Note on a fossil species of *Chlamydoselachus*.
Proc. Zool. Soc. Lond., 1887, pp. 542-544.
- 1887 B
On *Chondrosteus acipenseroides*, Agassiz.
Quart. Jour. Geol. Soc., xliii, pp. 605-616, with pl. xxlii.
- 1887 C
The fossil fishes of the chalk of Mount Lebanon, in Syria.
Trans. Roy. Dublin Soc. (2), iii, pp. 457-536, with pls. xiv-xxxviii.
- 1888 A
On fossil-fish remains from the Tertiary and Cretaceous-Tertiary formations of New Zealand.
Trans. Roy. Dublin Soc. (2), iv, pp. 1-48, with pls. i-vii.
- 1890 A
On the fossil fish of the Cretaceous formations of Scandinavia.
Trans. Roy. Dublin Soc. (2), iv, pp. 363-434, with pls. xxxviii-xlvi.

- Davis, James W.**—Continued. 1890 B
On the dentition of *Pleuroplax* (*Pleurodus*), A. S. Woodward.
Ann. and Mag. Nat. Hist. (6), v, pp. 291-294, with pl. xlii.
- 1892 A
On the fossil-fish remains of the Coal-measures of the British Islands. Part I. *Pleuracanthidae*.
Trans. Roy. Dublin Soc. (2), iv, pp. 703-748, with pls. lxy-lxxiii.
Pleuracanthus, *Orthacanthus*, *Xenacanthus*, *Compsacanthus*, *Diplodus*, and *Didymodus* are regarded as synonymous.
- 1894 A
On the fossil-fish remains of the Coal-measures of the British Islands. Part II. *Acanthodidae*.
Trans. Roy. Dublin Soc. (2), v, pp. 249-258, with pls. xxvii-xxix.
- Davison, Charles.** 1894 A
On deposits from snowdrift, with especial reference to the origin of the loess and the preservation of mammoth remains.
Quart. Jour. Geol. Soc., i, pp. 472-487.
- Dawkins, W. Boyd.** 1870 A
Fossil mammals in North America.
Nature, ii, pp. 119-120; 232-233.
A review of Dr. Leidy's "The extinct mammalian fauna of Dakota and Nebraska."
- 1871 A
Geology of Oxford.
Nature, v, pp. 145-149, with 6 woodcuts.
A review of Prof. John Phillips's "Geology of Oxford and the Valley of the Thames."
- 1872 A
The British Pleistocene *Mammalia*. Part V. British Pleistocene *Ovidæ*, *Oribos moschatus*.
Palæontographical Society, xxv, pp. 1-30, pl. i-v.
- 1879 A
On the range of the mammoth in space and time.
Quart. Jour. Geol. Soc., xxxv, pp. 138-147.
- 1880 A
The classification of the Tertiary period by means of the *Mammalia*.
Quart. Jour. Geol. Soc., xxxi, pp. 379-405.
- 1883 A
On the alleged existence of *Oribos moschatus* in the Forest-bed, and on its range in space and time.
Quart. Jour. Geol. Soc., xxxix, pp. 575-581, with 1 woodcut.

Dawkins, W. Boyd—Continued. 1889 A
[Address as president of Section C
of the Brit. Assoc. Adv. Sci., 1888, on
the progress of geological inquiry.]
Report. Brit. Assoc. Adv. Sci., 58th meeting,
Bath, 1888, pp. 644-650.

Dawkins, W. B., and Sanford, W. A.
1872 A
The British Pleistocene *Mammalia*.
Part iv. British Pleistocene *Felidae*.
Palaeontographical Society, xxv, pp. 177-
194; pls. xxiv-xxv.

Dawson, George M. 1894 A
Notes on the occurrence of mammoth
remains in the Yukon district of Can-
ada and Alaska.
Quart. Jour. Geol. Soc., i, pp. 1-9.
For notice of this paper and for remarks by
Haworth see Nature, xlix, p. 93.

Dawson, J. William. 1855 A
Notice of the discovery of a reptilian
skull in the Coal-measures of Pictou.
Quart. Jour. Geol. Soc., xi, pp. 8-9.
The reptile referred to is *Baphetes planiceps*.

1860 A
On a terrestrial mollusk, a chilognathous
myriapod, and some new species
of reptiles from the Coal-measures of
Nova Scotia.
Quart. Jour. Geol. Soc., xvi, pp. 268-277,
with 29 figs. in the text.

1862 A
Note on the discovery of additional
remains of land animals in the Coal-
measures of the South Joggins, Nova
Scotia.
Quart. Jour. Geol. Soc., xviii, pp. 5-7.

1863 A
Air breathers of the Coal period.
Amer. Jour. Sci. (2), xxxvi, pp. 430-432.
Abstract of pamphlet with same title, with
illustrations; Bailliere, New York and Lon-
don, 1863; Montreal, Dawson Brothers.
See also Canadian Naturalist, viii, 1863.

1863 B
Notice of a new species of *Dendrerpeton*,
and of the dermal coverings of cer-
tain Carboniferous reptiles.
Quart. Jour. Geol. Soc., xix, pp. 469-473.

1863 C
A review of Dr. Dawson's book, "Air
breathers of the Coal period," by J. J.
Mackie.
The Geologist, vi, pp. 434-440.

Dawson, J. William—Continued. 1863 D
The air breathers of the Coal period
of Nova Scotia.
Canadian Naturalist and Geologist, viii, pp.
1-12; 81-92; 159-160; 161-175; 268-295; with pls.
i-vi.

1863 E
Note on the footprints of a reptile
from the Coal formation of Cape
Breton.
Canadian Naturalist and Geologist, viii, pp.
430-431, with one fig. in the text.
Name assigned to the tracks, *Sauropus
sydnensis*.

1868 A
Acadian geology. The geological
structure, organic remains, and min-
eral resources of Nova Scotia, New
Brunswick, and Prince Edward
Island.
London, 1868; pp. i-xxvii; 1-694, with 232
figs. in the text.

1870 A
Note on some new animal remains
from the Carboniferous and Devonian
of Canada.
Quart. Jour. Geol. Soc., xxvi, pp. 166-167.
Also in Canadian Naturalist (2), v, pp. 98-99.
Note on, in Geol. Magazine, vii (1870), p. 87.
Describes briefly *Baphetes minor*.

1872 A
Note on footprints from the Carbonif-
erous of Nova Scotia, in the collection
of the Geological Survey of Canada.
Geol. Magazine (1), ix, pp. 251-253, with 1
woodcut.
Describes *Sauropus unguifer*.

1876 A
On a recent discovery of Carbonifer-
ous batrachians in Nova Scotia.
Amer. Jour. Sci. (3), xii, pp. 440-447.

1877 A
Lower Carboniferous fishes of New
Brunswick.
Canadian Naturalist (2), viii, pp. 337-340,
with figs. in the text.
Describes the new species *Palaeoniscus
(Rhadinichthys) modulus*, and *P. jacksoni*.

1877 B
Note on a fossil seal from the Leda
clay of the Ottawa Valley.
Canadian Naturalist (2), viii, pp. 340-341.
The seal is identified as *Phoca groenlandica*.

1878 A
Acadian Geology. The geological
structure, organic remains, and miner-

Dawson, J. William—Continued. 1878 A
al resources of Nova Scotia, New Brunswick, and Prince Edward Island.
Third edition, pp. 1-xxvii; 1-694; supplement, pp. 1-103, with 248 figs.

1882 A

On the results of recent explorations of erect trees containing animal remains in the Coal formation of Nova Scotia.

Philos. Trans. Royal Soc., Lond., clxxiii, pt. II, pp. 621-659; pls. xxxix-xlvii.

1882 B

On the results of recent explorations of erect trees containing reptilian remains in the Coal formation of Nova Scotia.

Canadian Naturalist (2), x, pp. 252-254.

This is a brief abstract of the preceding paper and is reprinted from Nature.

1883 A

On portions of the skeleton of a whale from gravel on the line of the Canadian Pacific railway, near Smiths Falls, Ontario.

Amer. Jour. Sci. (3), xxv, pp. 200-202.

Canadian Naturalist (2), x, pp. 386-387.

1890 A

Note on a fossil fish and marine worm found in the Pleistocene nodules of Greens Creek, on the Ottawa.

The Canadian Record of Science, iv, pp. 86-88.

Records the finding of *Cottus uncinatus* (*Arctedichius*); also *Mallotus villosus*, *Cyclopterus lumpus*, and *Gasterosteus aculeatus*.

1891 A

Note on *Hylonomus lyelli*, with photographic reproduction of skeleton.

Geol. Magazine (3), viii, pp. 258-259, with pl. viii.

1891 B

On new specimens of *Dendropteron acadianum*, with remarks on other Carboniferous amphibians.

Geol. Magazine (3), viii, pp. 145-156, with 4 figs.

1892 A

On the mode of occurrence of remains of land animals in erect trees at the South Joggins, Nova Scotia.

Trans. Royal Soc., Canada, for 1891, ix, sec. iv, pp. 127-128.

1894 A

Some salient points in the science of the earth.

Pp. 499; illus. 46; New York: Harper & Brothers, publishers, 1894.

Chapter x; The oldest air-breathers.

Dawson, J. William—Continued. 1894 B
Preliminary note on recent discoveries of batrachian and other air-breathers in the Coal formation of Nova Scotia.

The Canadian Record of Science, vi, pp. 1-7, with 1 fig. in the text.

1895 A

Synopsis of the air-breathing animals of the Palæozoic in Canada up to 1894.

Trans. Roy. Soc. of Canada for 1894, xii, sec. iv, pp. 71-78.

1895 B

Note on a specimen of *Behya catodon*, from the Leda clay, Montreal.

The Canadian Record of Science, vi, pp. 351-354.

— See also **Lyell and Dawson**.

Day, E. C. H.

1864 A

On *Acrodus annungia*; with remarks upon the affinities of the genera *Acrodus* and *Hybodus*.

Geol. Magazine (1), i, pp. 57-65, with pls. III and IV.

“**D. L. H.**”

1838 A

Fossil Fishes.

Amer. Jour. Sci., xxxiv, pp. 198-200.

Dean, Bashford.

1891 A

Pineal foramen of placoderm and catfish.

Nineteenth report Commissioners of Fisheries of the State of New York, pp. 307-363, with pls. I-xiv.

The plates and the explanations thereof are included in the pagination.

1893 A

Report of proceedings of New York Acad. of Sciences, Dec. 12, 1892.

Amer. Naturalist, xxvii, p. 183.

Refers to finding of *Protoverras ceter*.

1893 B

On *Trachosteus* and *Mylostomus*; notes on their structural characters.

Trans. N. Y. Acad. Sci., xii, pp. 70-71.

1893 C

Note on the mode of origin of the paired fins.

Trans. N. Y. Acad. Sci., xii, pp. 121-125.

1893 D

On the fin-structures of *Diploturus*.

Trans. N. Y. Acad. Sci., xlii, p. 22.

A very brief abstract.

1894 A

Contributions to the morphology of *Cladoselache* (*Cladodus*).

Jour. Morphology, ix, pp. 87-114, pl. vii.

- Dean, Bashford**—Continued. 1894 B
A new Cladodont from the Ohio Waverly, *Cladoselache newberryi*, n. sp.
Trans. N. Y. Acad. Sci., xlii, pp. 115-119, with pl. 1.
Describes *C. newberryi*.
- 1895 A
Fishes, living and fossils; an outline of their forms and probable relationships.
Pp. 1-xiv; 1-300, with frontispiece and 344 figs. in the text; Macmillan & Co., New York and London.
Review of by A. S. Woodward, Geol. Magazine, 1896, p. 135; and in Nat. Sci., viii, 267.
- 1896 A
On the vertebral column, fins, and ventral armoring of *Dinichthys*.
Trans. N. Y. Acad. Sci., vol. xv, pp. 157-163, pls. vii, viii.
- 1896 B
The fin-fold origin of the paired limbs, in the light of the ptychopterygia of Palæozoic sharks.
Anatom. Anzeiger, xi, pp. 673-679, with 8 figs.
- 1896 C
Sharks as ancestral fishes.
Nat. Science, viii, pp. 245-253, with 5 figs. in the text.
Describes and figures *Cladoselache*.
- 1897 A
Note on the ventral armoring of *Dinichthys*.
Trans. N. Y. Acad. Sci., xvi, pp. 57-61, with pls. ii, iii.
- 1897 B
On a new species of *Edestus*, *E. lecontei*, from Nevada.
Trans. N. Y. Acad. Sci., xvi, pp. 61-69, with pls. iv, v.
Discusses also its relationships to the other species.
- 1899 A
Devonian fishes for the American Museum.
Science (2), x, p. 978.
Refers to a purchase of a collection of Placoderms from the Devonian of Ohio.
- Deane, James**. 1844 A
On the fossil footmarks of Turners Falls, Mass.
Amer. Jour. Sci., xli, pp. 73-77, with 2 pls.
Abstract of, in Quart. Jour. Geol. Soc. Lond., i, p. 141.
- 1844 B
On the discovery of fossil footmarks.
Amer. Jour. Sci., xli, pp. 381-390.
A protest against Prof. E. Hitchcock's claims regarding the fossil footmarks of the Connecticut Valley. See Hitchcock, E., 1844 B.
- Deane, James**—Continued. 1844 C
Answer to the "Rejoinder" of Professor Hitchcock.
Amer. Jour. Sci., xli, pp. 399-401.
Reply to Hitchcock, E., 1844 B.
- 1845 A
Description of fossil footprints in the New Red sandstone of the Connecticut Valley.
Amer. Jour. Sci., xlviii, pp. 158-167, with 1 pl.
- 1845 B
Illustrations of fossil footmarks.
Boston Jour. Nat. Hist., v, pp. 277-284, with 3 figs. in the text.
No species named.
- 1845 C
Notice of a new species of batrachian footmarks.
Amer. Jour. Sci., xlix, pp. 79-81, with figs. in the text.
No systematic name given the tracks.
- 1845 D
Fossil footmarks and raindrops.
Amer. Jour. Sci., xlix, pp. 213-214, with 1 page of figs.
No systematic names are applied to the footmarks.
- 1847 A
Notice of new fossil footprints.
Amer. Jour. Sci. (2), iii, pp. 74-79, with 4 figs. in the text.
- 1847 B
Fossil footprints.
Amer. Jour. Sci. (2), iv, pp. 443-449.
- 1848 A
Fossil footprints of a new species of quadruped.
Amer. Jour. Sci. (2), v, pp. 40-41, with 1 fig. in the text.
In this paper no systematic name is given to the footprints.
- 1850 A
Fossil footprints of Connecticut River.
Jour. Acad. Nat. Sci. Phila. (2), ii, pp. 71-74, pls. viii, ix.
- 1856 A
On the sandstone fossils of Connecticut River.
Jour. Acad. Nat. Sci. Phila. (2), iii, pp. 173-178.
- 1861 A
Ichnographs from the sandstone of Connecticut River. A memoir upon the fossil footprints and other impressions of the Connecticut River sandstone.
4to. Boston, 1861, pp. 1-61, with pls. i-xlvi.
This work was compiled mostly from Dr. Deane's incomplete papers by T. T. Bouvé. Accompanying it is an introduction (pp. 2-4), a biographical notice (pp. 5-12), and a list of

Deane, James—Continued.

Dr. Deane's published papers (pp. 13-14). The book consists mostly of explanations of the plates, and the species have been determined by Mr. Bouvé from Hitchcock's works.

Deecke, W. 1895 A

Notiz über ein Nothosauriden-Fragment.

Zeitschr. deutsch. geol. Gesellsch., xlvii, pp. 303-306, with 1 fig. in the text.

Deichmüller, J. V.

See Geinitz and Deichmüller.

De Kay, James E. 1824 A

Account of the discovery of a skeleton of the *Mastodon giganteum*.

Annals Lyc. Nat. Hist. N. Y., i, pp. 143-147.

A report made by Messrs. De Kay, Van Rensselaer, and Cooper. Records finding of skeleton in Monmouth County, N. J.

1828 A

Notes on a fossil skull in the cabinet of the Lyceum, of the genus *Bos*, from the banks of the Mississippi, with observations on the American species of the genus.

Annals Lyc. Nat. Hist. N. Y., ii, pp. 280-291.

See also Edinburgh New Philos. Jour., 1828, v, pp. 326-327.

1830 A

On the remains of extinct reptiles of the genera *Mosasaurus* and *Geosaurus* found in the Secondary formation of New Jersey, and on the occurrence of the substance recently named coprolite by Dr. Buckland, in the same locality.

Annals Lyc. Nat. Hist. N. Y., iii, pp. 134-141, pl. iii.

1833 A

Observations on a fossil jaw of a species of gavial from west Jersey.

Annals Lyc. Nat. Hist. N. Y., iii, pp. 156-165, pl. iii, figs. 7-11.

1842 A

Zoology of New York, or the New York fauna. Part III. Reptiles and Amphibia.

Pp. i-vii; 1-96, with pls. i-xxiii.

1842 B

Fossil fishes.

Zoology of New York. Part IV. Fishes, pp. 385-387.

Gives a list of fossil fishes found in the United States and known to De Kay. Localities and references to literature given.

1842 C

Mammalia.

Zoology of New York. Part I. *Mammalia*, pp. i-xv; 1-142, with pla. i-xxxiii.

Describes and refers to a number of fossil mammals. Of these a few are figured.

Delbos, Joseph.

1858 A

Recherches sur les ossements des Carnassiers des cavernes de Senteim (Haut-Rhin) précédées d'observations sur l'ostéologie de l'ours brun des Pyrénées.

Annales des Sciences Naturelles, Zool. (4), ix, pp. 155-223.

1860 A

Recherches sur les ossements des Carnassiers des cavernes de Senteim (Haut-Rhin): Études sur les ours fossiles.

Annales des Sciences Naturelles, Zool. (4), xlii, pp. 47-106.

1860 B

Recherches sur les ossements des Carnassiers des cavernes de Senteim (Haut-Rhin): Études sur les ours fossiles.

Annales des Sciences Naturelles, Zool., (4), xiv, pp. 5-112.

Delfortrie, E.

1874 A

Un *Zeuglodon* dans les faluns du sud-ouest de la France.

Jour. de Zoologie, iii, pp. 25-30, with 2 figs. in the text.

Dennis, J. B. P.

1861 A

On the mode of flight of the pterodactyles of the Coprolite bed near Cambridge.

Report Brit. Assoc. Adv. Sci., 30th meeting, Oxford, 1860, p. 76.

Depéret, Charles.

1887 A

Recherches sur la succession des faunes de vertébrés miocènes de la vallée du Rhone. Pt. I (pp. 45-118), Stratigraphie paléontologique. Pt. ii (pp. 119-307), Description des vertébrés miocènes du bassin du Rhone.

Archives Mus. d'Hist. Nat. de Lyon, iv, pp. 45-313, with pls. ix-xxv.

1892 A

La faune de mammifères miocènes de la Grive-Saint-Alban (Isère).

Archives Mus. d'Hist. Nat. de Lyon, pp. 1-96, pls. i-iv.

Deslongchamps-Eudes, J. A. 1838 A

Mémoire sur le *Poekilopleuron bucklandi*, grand saurien fossile, intermédiaire entre les crocodiles et les lézards.

Mém. Soc. Linn. Normandie, vi, pp. 37-146, with pls. i-viii.

1864 A

Mémoires sur les téléosauriens de l'époque jurassique du Département du

Deslongchamps-Eudes, J. A.—Cont'd.
Calvados. Première mémoire contenant l'exposé des caractères généraux des téléosauriens comparés à ceux des crocodiliens et la description particulière des espèces du lias supérieur.

Mém. Soc. Linn. Normandie, Caen, xlii, No. 3, pp. 1-188, with 9 pls.

Deslongchamps-Eudes, E. 1870 A

Note sur les reptiles fossiles appartenant à la famille des téléosauriens, dont le débris ont été recueillis dans les assises jurassiques de Normandie.

Bull. Soc. Géol. de France, xxvii, pp. 299-351, pls. ii-viii.

Desor, E. 1849 A

Remarks on finding of mastodon at Calena, Mo.

Proc. Boston Soc. Nat. Hist., iii, p. 207.

1852 A

Post-pliocene of the Southern States and its relation to the Laurentian of the North and the deposits of the valley of the Mississippi.

Amer. Jour. Sci. (2), xiv, pp. 49-59.

Destinez, P. 1898 A

Sur deux *Diplodus* et un *Chomatodus* de l'Ampélite à unifère de Chokier, et deux *Cladodus* de Visé.

Ann. Soc. Géol. Belgique, xxiv, pp. 219-223.

Dickeson, M. W. 1845 A

On the geology of the Natchez bluffs.

Proc. 6th meeting Assoc. Amer. Geologists and Naturalists, 1845, pp. 77-79.

In this is described "a curious nondescript quadruped."

1846 A

Remarks on *Megalonyx jeffersoni*.

Proc. Acad. Nat. Sci. Phila., iii, p. 106.

Didelot, Léon. 1875 A

Note sur un *Pycnodus* nouveau du Néocomien moyen (*P. heterodon*).

Bull. Soc. Géol. France (3), iii, pp. 237-256, pl. vi.

Diffenberger, F. R. 1873 A

Elephas americana in Mexico.

Amer. Jour. Sci. (3), vi, p. 62.

Dixon, Frederick. 1850 A

The geology and fossils of the Tertiary and Cretaceous formations of Sussex.

Pp. i-xvi; 1-422, with pls. i-xi.

1878 A

The geology of Sussex, or the geology and fossils of the Tertiary and Cretaceous formations of Sussex; new edi-

Dixon, Frederick—Continued.

tion, revised and augmented, by T. Rupert Jones, Brighton, 1878.

Pp. i-xxiv; 1-469, with pls. i-xxvii.

Dobson, G. E. 1885 A

An attempt to exhibit diagrammatically the several stages of evolution of the *Mammalia*.

Report Brit. Assoc. Adv. Sci., 54th meeting, Montreal, 1884, pp. 768-769, with 1 pl.

1878 A

Catalogue of the *Chiroptera* in the collection of the British Museum.

London, 1878. 8 vo; pp. i-xlii; 1-567, with pls. i-xxix.

1883 A

A monograph of the *Insectivora*, systematic and anatomical. Part I, including the families *Erinaceidæ*, *Cen-tetidæ*, and *Solenodontidæ*. Part II, *Potamogalidæ*, *Chrysochloridæ*, and *Talp-idæ* [in part]. Part iii, including pls. xxxiii-xxviii.

Pp. 1-172, with pls. i-xxviii. 4to. London. Part i was issued in 1882; pt. ii, in 1883; pt. iii, in 1890. The text was not completed.

Döderlein, Ludwig. 1878 A

Ueber das Skelet des *Tapirus pin-chacus*.

Archiv Naturgesch. xlii, i, pp. 37-90.

1889 A

Das Skelet von *Pleuracanthus*.

Zoolog. Anzeiger, xii, pp. 123-127, with 1 text fig.

See also **Steinmann and Döderlein**.

Dohrn, Anton. 1886 A

Entstehung und Differenzirung des Zungenbein-und Kiefer-Apparates der Selachier.

Mittheil. Zoolog. Station Neapel, vi, pp. 1-48; 80-92, with pls. i-viii.

Dollo, Louis. 1882 A

Note sur l'ostéologie des *Mosasauridæ*.

Bull. de Musée Roy. d'Hist. nat. de Belgique, i, pp. 55-74, with pls. iv-vi.

1882 B

Première note sur les Dinosauriens de Bernissart.

Bull. de Musée Roy. d'Hist. nat. de Belgique, i, pp. 161-178, with pl. ix.

1882 C

Deuxième note sur les Dinosauriens de Bernissart.

Bull. de Musée Roy. d'Hist. nat. de Belgique, i, pp. 205-211, with pl. xii.

The paper treats especially of the sternum of *Iguanodon* and related genera.

Dollo, Louis—Continued. 1883 A

Note sur la présence chez les oiseaux du "troisième trochanter" des Dinosauriens et sur la fonction de celui-ci.

Bull. de Musée Roy. d'Hist. nat. de Belgique, ii, pp. 13-19, with pl. 1.

1883 B

Troisième note sur les dinosauriens de Bernissart.

Bull. de Musée Roy. d'Hist. nat. de Belgique, ii, pp. 86-126, with pls. iii-v.

Treats of *Iguanodon* and its relationships to other *Dinosauria* and to *Aves*. Plate v is a restoration of *Iguanodon bernissartensis*.

1883 C

Note sur les restes de dinosauriens rencontrés dans le Crétacé supérieur de la Belgique.

Bull. de Musée Roy. d'Hist. nat. de Belgique, ii, pp. 206-221, with 20 figs. in the text.

1883 D

Quatrième note sur les dinosauriens de Bernissart.

Bull. de Musée Roy. d'Hist. nat. de Belgique, ii, pp. 223-252, with pls. ix, x.

This paper is devoted to the anatomy of *Iguanodon bernissartensis*.

1883 E

Première note sur les crocodiliens de Bernissart.

Bull. de Musée Roy. d'Hist. nat. de Belgique, ii, pp. 306-340, with pl. xii.

Treats of relationships of the genera of crocodiles.

1883 F

Note sur la présence du *Gastornis edwardii*, Lemoine, dans l'assise inférieure de l'étage landenien, à Mesvin, Près Mons.

Bull. de Musée Roy. d'Hist. nat. de Belgique, ii, pp. 297-306, with pl. ix and 1 text fig.

1884 A

Première note sur les chéloniens de Bernissart.

Bull. de Musée Roy. d'Hist. nat. de Belgique, iii, pp. 63-84, with pls. i, ii.

Contains a discussion of the classification of the *Testudinata*.

1884 B

Cinquième note sur les dinosauriens de Bernissart.

Bull. de Musée Roy. d'Hist. nat. de Belgique, iii, pp. 129-151, with pls. vi, vii.

Treats especially of the structure and relationship of *Iguanodon*.

Dollo, Louis—Continued. 1884 C

Première note sur le Simædosaurien d'Erquelinnes.

Bull. de Musée Roy. d'Hist. nat. de Belgique, iii, pp. 151-186, with pls. viii, ix.

Discusses the structure of *Simædosaurus* and its relation to *Champsosaurus* and *Sphenodon*.

1885 A

Sur l'identité des genres *Champsosaurus* et *Simædosaurus*.

Bull. Soc. géol. de France (3), xiv, pp. 96-96.

1885 B

Notes d'ostéologie erpétologique.

I. Sur une nouvelle dent de *Craspedon*, dinosaurien du Crétacé supérieur de la Belgique [pp. 309-318, 6 figs. in text].

II. Sur la présence d'un canal basioccipital médian et de deux canaux hypobasilaires chez un genre mosasauriens [pp. 319-331, 8 figs.].

III. Sur la présence d'une interclavicule chez un genre de mosasauriens et sur la division de ce sous-ordre en familles [pp. 332-335, 2 figs.].

IV. Sur les épiphyse du calcaneum des lacertilien [pp. 336-338, 4 figs.].

Annales Soc. Sci. de Bruxelles, ix, pp. 309-338, with 20 figs. in text.

1886 A

Première note sur les chéloniens du Bruxellien (Éocène moyen) de la Belgique.

Bull. Musée Roy. d'Hist. nat. Belgique, iv, pp. 76-100, with pls. i, ii.

Contains a synopsis of the classification of *Testudinata* and observations on their osteology.

1885 C

Première note sur le Hainosaure, mosasaurien nouveau de la craie brune phosphatée de Mesvin-Ciply, Près Mons.

Bull. de Musée Roy. d'Hist. nat. de Belgique, iv, pp. 25-35.

Contains notes on various American genera of *Mosasauridae*.

1887 A

Psephophorus.

Annales Soc. Scientifique de Bruxelles, xi, pp. 189-176.

1888 A

On the humerus of *Euclastes*.

Geol. Magazine (3), v, pp. 261-267, with 3 figs.

Dollo, Louis—Continued.

1888 B

Iguanodontidae et Camptonotidae.

Comptes rend. Acad. Paris, cvi, pp. 775-777.

Notice of this paper in Geol. Mag., 1888, v, p. 520.

1888 C

Première note sur les chéloniens oligocènes et néogènes de la Belgique.

Bull. de Musée Roy. d'Hist. nat. de Belgique, v, pp. 59-98, with pl. iv and a text fig. of a young *Dermochelys coriacea*.This important paper contains a discussion of the higher groups of *Testudinata*, and especially a consideration of the value of the group *Atheca*.

1888 D

Sur le crâne des mosasauriens.

Bull. Sci. de la France et de la Belgique (3), i (xix), pp. 1-11, with pl. i and 9 figs. in the text.

1888 E

Sur la signification du "trochanter pendant" des dinosauriens.

Bull. Sci. de la France et de la Belgique (3), i (xix), pp. 215-224.

1890 A

Première note sur les mosasauriens de Maestricht.

Mém. Soc. Belge de Géologie, de Paléont., et d'Hydrologie (Bruxelles), iv, pp. 151-169, with pl. viii.

Contains abundant citations of the literature of the *Mosasauridae*.

1891 A

Nouvelle note sur le *Champsosaurus*, rhynchocephalien adapté à la vie fluviale.

Mém. Soc. Belge de Géologie, de Paléont., et d'Hydrologie (Bruxelles), v, pp. 147-199, with pls. vi-viii.

1892 A

Sur l'origine de la nageoire caudale des *Ichthyosaurus*.

Bull. Soc. Belge Géol., Paléont., Hydrol., vi, Pr. verb., pp. 167-174, with 8 text figs.

1892 B

Première note sur les Téléostéens du Crétacé supérieur de la Belgique.

Bull. Soc. Belge Géol., Paléont., Hydrol., vi, pp. 180-189, with 4 text figs.

1892 C

Sur un nouveau type de dinosaurre.

Bull. Soc. Belge Géol., Paléont., Hydrol., vi, Pr. verb., pp. 10-12.

The principal groups of dinosaurs are characterized. The new type alluded to appears to be *Triceratops* Marsh.**Dollo, Louis—Continued.**

1893 A

Suppression du genre *Leiodon*.

Bull. Soc. Belge Géol., Paléont., Hydrol., vii, Pr. verb., p. 79.

Regards *Leiodon* as a synonym of *Mosasaurus*.

1893 B

Champsosaurus et *Pareiasaurus*.

Bull. Soc. Belge Géol., Paléont., Hydrol., vii, p. 79.

1893 C

Nouvelle note sur l'ostéologie des mosasauriens.

Bull. Soc. Belge Géol., Paléont., Hydrol., vi, pp. 219-259, with pls. iii, iv.

1896 A

Sur la phylogénie des *Dipneustes*.

Bull. Soc. Belge Géol., Paléont., Hydrol., ix, pp. 79-128, with pls. v-lx.

Concluded with a list of 123 papers and memoirs bearing on the subject. An abstract appears in Amer. Naturalist, xxx, p. 479.

Domeier, Wilhelm.

1803 A

Nachricht von einem in Nord America gefundenen vollständigen Gerippe eines Vierfüßlers, bisher häufig Mammoth oder Mammuth genannt.

Neue Schriften Gesellsch. naturforsch. Freunde zu Berlin, iv, pp. 79-110.

Douglass, Earl.

1900 A

The Neocene lake beds of western Montana and descriptions of some new vertebrates from the Loup Fork. A thesis for the degree of M. S. in the University of Montana, June, 1899. Published by the University.

Pp. 3-27, with pls. i-iv.

Copies of this paper were first distributed about July 1, 1900.

1900 B

New species of *Merycocherus* in Montana, Part i.

Amer. Jour. Sci. (4), x, pp. 428-438, with 3 figs. in the text.

Describes *M. laticeps*. Part ii appeared in same journal January, 1901.**Donald, J. T.**

1881 A

Notes on elephant remains from Washington Territory.

The Canadian Naturalist (2), ix, pp. 53-56.

Dugès, Alfredo.

1887 A

Platygonus alemanii, nobis, fósil cuaternario.

La Naturaleza (2), i, pp. 16-18, pls. i, ii.

Duméril, Aug.

1865 A

Histoire naturelle des poissons ou ichthyologie générale. Tome premier,

Duméril, Aug.—Continued.

Élasmobranches, Plagiostomes et Holocéphales ou Chimères.

Pp. 1-720, with atlas of pls., Paris, 1865.

Dupont, Edward. 1867 A

Human remains in Belgium.

Amer. Jour. Sci. (2), xliii, pp. 121-123; 260-264.

Contains mention of *Elephas primigenius*.

Duralde, Martin. 1804 A

Abstract of a communication from Mr. Martin Duralde relative to fossil bones, etc., of the country of Apelousas, west of the Mississippi, to Mr. William Dunbar, of the Natchez, and by him transmitted to the society.

Trans. Amer. Philos. Soc., vi, pp. 55-58.

No species definitely mentioned except bone of man, and of "elephanta."

Duvernoy, G. L. 1851 A

Caractères ostéologiques des genres nouveaux ou des espèces nouvelles de cétacés vivants ou fossiles.

Annales Sci. Nat. (3), xv, pp. 5-71; 381, with pls. i, ii.

1855 A

Nouvelles études sur les rhinocéros fossiles.

Arch. Mus. d'Hist. nat., Paris, viii, pp. 1-144, with pls. i-viii.

Earle, Charles. 1891 A

On a new species of *Palæosyops*—*Palæosyops megarhinus*.

Amer. Naturalist, xxv, pp. 45-47, with 1 fig. in text.

1891 B

Palæosyops and allied genera.

Proc. Acad. Nat. Sci. Phila., 1891, pp. 106-117, with 8 figs. in the text.

1892 A

Revision of the species of *Coryphodon*.

Bull. Amer. Mus. Nat. Hist., iv, pp. 149-166.

1892 B

The variability of specific characters as exhibited by the extinct genus *Coryphodon*.

Science, xx, pp. 7-9, with 2 figs. in the text.

1892 C

A memoir upon the genus *Palæosyops* Leidy, and its allies.

Jour. Acad. Nat. Sci. Phila., ix, pp. 267-388, pls. x-xiv.

Reviewed by R. Lydekker, Natural Science, ii, pp. 148-149.

Earle, Charles—Continued. 1893 A

Some points in the comparative anatomy of the tapir.

Science, xxi, p. 118.

Discusses also the names of the tapir.

1893 B

On the systematic position of the genus *Protopogonodon*.

Amer. Naturalist, xxvii, pp. 377-379.

1893 C

The evolution of the American tapir.

The Geol. Magazine (3), x, pp. 391-396.

1893 D

The structure and affinities of the Puerco ungulates.

Science, xxii, pp. 49-51.

1895 A

On a supposed case of parallelism in the genus *Palæosyops*.

Amer. Naturalist, xxix, pp. 622-626, pl. xxvii.

1896 A

Notes on the fossil *Mammalia* of Europe. I. Comparison of the American and European forms of *Hyracotherium*.

Amer. Naturalist, xxx, pp. 131-135.

1896 B

Tapirs, past and present.

Science (2), iv, pp. 934-935.

1898 A

Relationship of the *Chriacidae* to the *Primates*.

Amer. Naturalist, xxxii, pp. 261-262.

See also Osborn and Earle; Wortman and Earle.

Eastman, Charles R. 1895 A

Beiträge zur Kenntniss der Gattung *Oxyrhina*, mit besonderer Berücksichtigung von *Oxyrhina mantelli* Agassiz.

Palæontographica, xii, pp. 149-191, with pls. xvi-xviii.

1896 A

Observations on the dorsal shields in the *Dinichthyids*.

Amer. Geologist, xviii, pp. 222-223.

Abstract of paper read before the Amer. Assoc. Adv. Sci., 1896.

1896 B

Preliminary note on the relations of certain body plates in the *Dinichthyids*.

Amer. Jour. Sci. (4), ii, pp. 46-50.

1896 C

Review of Bashford Dean's "On the vertebral column, fins, and central armoring of *Dinichthys*."

Amer. Geologist, xviii, pp. 316-317.

Eastman, Charles R.—Continued. 1896 D
Remarks on *Petalodus alleghaniensis*,
Leidy.

Jour. Geology, iv, pp. 174-176.

1897 A

Tamiobatis vetustus; a new form of
fossil skate.

Amer. Jour. Sci. (4), iii, pp. 85-90, with pl. i
and 1 fig. in the text.

1897 B

On *Ctenacanthus* spines from the Keo-
kuk limestone of Iowa.

Amer. Jour. Sci. (4), iii, pp. 10-13, with 2 figs.
in the text.

Describes *C. ziphius* St. J. and W., and *C.
acutus* sp. nov.

1897 C

On the characters of *Macropetalichthys*.

Amer. Naturalist, xxxi, pp. 493-499, with pl.
xii, and 1 fig. in the text.

1897 D

On the relations of certain plates in
the Dinichthyids.

Bull. Mus. Comp. Zool., Harvard, xxxi, pp.
19-43, with pls. 1-v.

1898 A

On the occurrence of fossil fishes in
the Devonian of Iowa.

Iowa Geol. Surv., vii, pp. 108-116, with pl.
iv and 1 fig. in the text.

The new genus *Synthetodus* is established
and the new species *Ptyctodus molaris* described.

A notice of this paper, by C. R. Keyes, is
found in Amer. Geologist, xxii, pp. 237-239.

1898 B

Dentition of Devonian *Ptyctodontida*.

Amer. Naturalist, xxxii, pp. 473-488; 545-
560, with 50 text figs.

1898 C

Some new points in Dinichthyid osteo-
logy.

Proc. Amer. Assoc. Adv. Sci., xlvii, Boston,
pp. 371-372.

See also Science (2), viii, pp. 400-401.

1898 D

Some new points in Dinichthyid
osteology.

Amer. Naturalist, xxxii, pp. 747-768, with 6
text figs.

For abstract, see Proc. Amer. Assoc. Adv.
Sci., xlvii, Boston, pp. 371-372.

1899 A

Some new American fossil fishes.

Science (2), ix, pp. 642-643.

1899 B

[Notes on fossil fishes found in the
Devonian at Milwaukee, Wis.]

Jour. of Geology, vii, pp. 278, 283.

These notes are contained in a paper by
Teller and Monroe.

Eastman, Charles R.—Continued. 1899 C

Description of new species of *Diplodus*
teeth from the Devonian of northeast-
ern Illinois.

Jour. Geol., vii, pp. 489-493, with pl. vii.

Describes as new *Diplodus priscus* and *D. stri-
atus*; also figures *Phacodus politus* Newb.

1899 D

Report on the department of verte-
brate palaeontology.

Annual Report of the assistant in charge of
the Mus. Comp. Zool. Harvard College to the
president and fellows of Harvard College for
1898-99, pp. 15, 16.

Records the fact that the type of *Titanichthys
agassizi* is in Harvard College, and that there
is also there a nearly complete skeleton of
Dinichthys pustulosus.

1899 E

Jurassic fishes from Black Hills of
South Dakota.

Bull. Geol. Soc. America, x, pp. 397-406, with
pls. xiv-xviii and 2 text figs.

1899 F

Upper Devonian fish fauna of Dela-
ware County, N. Y.

17th Annual Report of the State Geologist
[of New York] for the year 1897, pp. 317-327,
with 6 text figs.

1900 A

Fossil Lepidosteids from the Green
River shales of Wyoming.

Bull. Mus. Comp. Zool. Harvard Coll., xxxvi,
pp. 67-75, with pls. 1-ii.

1900 B

Dentition of some Devonian fishes.

Jour. Geology, viii, pp. 32-41, with 7 figs. in
the text.

1900 C

Devonische Fischreste aus der Eifel.

Amer. Geologist, xxv, pp. 391-392.

A notice of Huene's paper in Neues Jahrbuch
Min. 1900, i, Abh., p. 64.

1900 D

Einige neue Notizen über devonische
Fischreste aus der Eifel.

Centralbl. Min., Geolog. und Palaeont., 1900,
No. 6, pp. 177-178.

1900 E

New fossil bird and fish from the
Middle Eocene of Wyoming.

Geol. Magazine (4), vii, pp. 54-58, with pl.
iv.

Describes new genus and species of bird,
Gallinuloides wyomingensis, and fish, *Lepidosteus
atroz* Cope.

- Edwards, Alphonse Milne.** 1863 A
Mémoire sur la distribution géologique des oiseaux fossiles et description de quelques espèces nouvelles.
Annales des Sciences Naturelles, Zool. (4), xx, pp. 133-176, pl. iv.
- 1864 A
Recherches anatomiques, zoologiques, et paléontologiques sur la famille des chevrotains.
Annales des Sciences Naturelles, Zool. (5), II, pp. 49-167, pls. II-xII.
- 1865 A
Rapport sur les notes de MM. Nicolas et Chrétien relatives à des ossements fossiles provenant de la Vallée de Zaccualco.
Arch. Commission Sci. du Mexique, I, pp. 401-407, with 1 pl.
- 1868 A
Recherches anatomiques et paléontologiques pour servir à l'histoire des oiseaux fossiles de la France.
Vol. I, pp. 1-475, with pls. i-xcvi.
- 1871 A
Recherches anatomiques et paléontologiques pour servir à l'histoire des oiseaux fossiles de la France.
Vol. II, pp. 1-632, with pls. xcviI-cc.
- Edwards, Arthur M.** 1895 A
Ornithichnites and jaw bone from the Newark sandstone of New Jersey.
Amer. Jour. Sci. (3), I, p. 346.
- Edwards, Timothy.** 1793 A
A description of a horn or bone lately found in the river Chemung, or Tyoga, a western branch of the Susquehanna, about twelve miles from Tyoga Point.
Mem. Amer. Acad., II, p. 164.
Describes what was apparently the tusk of the mammoth.
- Egerton, P. G.** 1837 A
On certain peculiarities in the cervical vertebrae of the *Ichthyosaurus*, hitherto unnoticed.
Trans. Geol. Soc. London (2), v, pp. 187-193, with pl. xiv.
For a preliminary statement see Proc. Geol. Soc. Lond., II, 1837, p. 192.
- 1845 A
Description of the mouth of a *Hybodus* found by Mr. Boscawen Ibbetson on the Isle of Wight.
Quart. Jour. Geol. Soc., I, pp. 197-199, with pl. iv.
- Egerton, P. G.—Continued.** 1847 A
On the nomenclature of the fossil Chimaeroid fishes.
Quart. Jour. Geol. Soc. Lond., III, pp. 350-353, with pl. xIII and 1 fig. in the text.
- 1847 B
Fossil fish [of coal-field of eastern Virginia].
Quart. Jour. Geol. Soc. Lond., III, pp. 275-280.
- 1848 A
Palichthyologic notes. Supplemental to the works of Professor Agassiz.
Quart. Jour. Geol. Soc. Lond., IV, pp. 302-314, with pl. x and 2 figs. in the text.
This paper is devoted to the consideration of the structure of *Pterichthys* and the description of new species.
- 1848 B
Observations on Mr. McCoy's paper on "Some fossil fish of the Carboniferous period."
Ann. and Mag. Nat. Hist. (2), II, pp. 189-190.
- 1849 A
Palichthyologic notes. No. 2. On the affinities of the genus *Platysomus*.
Quart. Jour. Geol. Soc., v, pp. 329-332.
- 1849 B
Palichthyologic notes. No. 3. On the *Ganoidei heterocerci*.
Quart. Jour. Geol. Soc. Lond., VI, pp. 1-10, with pl. II.
- 1852 A
Lepidotus pectinatus.
Mem. Geol. Surv. United Kingdom, decade 6, no. III, pp. 1-2, with pl. III.
- 1852 B
Ptycholepis minor Egerton.
Mem. Geol. Surv. United Kingdom, decade 6, no. VII, pp. 1-3, pl. VII.
- 1853 A
Notes on the fossil fish from Albert mine.
Quart. Jour. Geol. Soc. Lond., IX, p. 115.
A brief identification of the fishes collected at Albert mine, New Brunswick, by Charles Lyell.
- 1853 B
Palichthyologic notes. No. 4. On the affinities of the genera *Tetragonolepis* and *Dapedius*.
Quart. Jour. Geol. Soc. Lond., IX, pp. 274-279, with pl. XI.
- 1857 A
Palichthyologic notes. No. 9. On some fish remains from the neighborhood of Ludlow.
Quart. Jour. Geol. Soc., London, XIII, pp. 282-289, with pls. IX, x.

Egerton, P. G.—Continued. 1857 B

On the unity of the genera *Pleuracanthus*, *Diplodus*, and *Xenacanthus*, and on the specific distinction of the Permian fossil *Xenacanthus decheni* (Beyrich.)

Ann. and Mag. Nat. Hist. (2), xx, pp. 423-424.

1859 A

Palichthyologic notes. No. 12. Remarks on the nomenclature of the Devonian fishes.

Quart. Jour. Geol. Soc., xvi, pp. 119-136.

1859 B

On *Chondrosteus*, an extinct genus of the *Sturionidae*.

Philosoph. Trans. Roy. Soc. Lond., cxlviii, pp. 871-875; pls. 67-70.

1861 A

Remarks on the ichthyolites of Farnell road.

Report Brit. Assoc. Adv. Sci., 30th meeting, Oxford, 1860, pp. 77-78.

Description of *Acanthodes mitchelli*.

1861 B

British fossils.

Mem. Geol. Sur. United Kingdom, decade 10, pp. 51-75; pls. iv-x.

Descriptions and figs. of *Tristichopterus*, *Acanthodes*, *Climacodus*, and *Diaplanthus*.

1862 A

On a new species of *Pterichthys* (*P. macrocephalus*, Egerton), from the yellow sandstone of Farlow Co., Salop.

Quart. Jour. Geol. Soc., xviii, pp. 103-106, with pl. iii, figs. 7-9.

1866 A

On a new species of *Acanthodes* from the Coal series of Longton.

Quart. Jour. Geol. Soc., xxii, pp. 468-470, with pl. xxiii.

1869 A

On two new species of *Gyrodon*.

Quart. Jour. Geol. Soc., xxv, pp. 379-386, with 5 text figs.

1871 A

On a new Chimæroid fish from the Lias of Lyme Regis (*Ischyodus orthorhinus* ♂)

Quart. Jour. Geol. Soc., xxvii, pp. 275-279, with pl. xiii.

Eichwald, Eduard. 1840 A

Die Thier- und Pflanzenreste des alten rothen Sandsteins und Bergkalks im Novgorodischen Gouvernement.

Bull. Sci. Acad. Imp. Sci. St. Pétersbourg, vii, pp. 78-91.

Eichwald, Eduard—Continued. 1846 A

Nachtrag zu der Beschreibung der Fische des devonischen Systems aus der Gegend von Pawlowsk.

Bull. Soc. Imp. Nat. Moscou, xix, pt. ii, pp. 277-318.

1857 A

Beitrag zur geographischen Verbreitung der fossilen Thiere Russlands.

Bull. Soc. Imp. Nat. Moscou, xxx, pt. ii, pp. 305-354.

Pp. 338-354 are devoted to the fossil vertebrates. Of most interest are some remarks on *Asterolepis* and *Bothriolepis*.

1860 A

Lethæa Rossica ou Paléontologie de la Russie.

Vol. 1, pp. 1493-1633, with pls. iv-lxx.

Only the pages of this volume are quoted here which contain matter bearing on the vertebrates.

1866 A

Die *Rhytina borealis* und der *Homo-crinus dipentus* in der Lethæa Rossica.

Bull. Soc. Imp. Nat. Moscou, xxxix, pp. 138-162, with pl. viii.

The plate illustrates the structure of *Homo-crinus*.

1868 A

Lethæa Rossica ou Paléontologie de la Russie.

Vol. ii, pp. 1195-1285, with pls. xxviii-xl, of vol. ii of atlas.

Only those pages of this volume are quoted which contain descriptions of vertebrates.

1871 A

Analekten aus der Palæontologie und Zoologie Russlands.

Moscow, 1871, 4to, pp. 1-iv; 1-23, with pls. i-iii.

Contains description and figures of *Palæotethis marginata* Eichw., pp. 1-15, pl. i.

Eigenmann, C. H. 1890 A

Description of a fossil species of *Sebastodes*.

Zoe, 1, p. 17, with 1 fig.

Describes preopercle of *Sebastodes* (?) rose from Tertiary beds at Port Halford, Cal.

Emerton, J. H. 1887 A

The restoration of the skeleton of *Dinoceras mirabile*.

Proc. Boston, Soc. Nat. Hist. xxiii, pp. 342-343.

Emery, Carl,

Die fossilen Reste von *Archegosaurus* und *Eryops* und ihre Bedeutung für die Morphologie des Gliedmassenskelets.

Anatom. Anzeiger, xiv, pp. 202-208, with 7 figs. in the text.

- Emery, Carl**—Continued. 1897 B
 Ueber die Beziehungen des Crossop-
 terygiums zu anderen Formen der
 Gliedmassen der Wirbeltiere.
 Anatom. Anzeiger, xiii, pp. 137-149, with 6
 figs. in the text.
- 1897 C
 Beiträge zur Entwicklungsgeschichte
 und Morphologie des Hand- und Fuss-
 skelets der Marsupialier.
 Semon's Zoolog. Forschungsreisen in Aus-
 tralien, etc., ii, pp. 371-400, with pls. xxxiii-
 xxxvi, with 13 text figs.
 On p. 400 is found a record of the literature
 examined.
- Emmons, Ebenezer.** 1845 A
 On the supposed *Zeuglodon cetoides* of
 Professor Owen.
 Amer. Quart. Jour. Agricult. and Sci., ii, pp.
 59-63, with 1 page of figs.
- 1845 B
 The *Zeuglodon cetoides* (Owen).
 Amer. Quart. Jour. Agricult. and Sci., ii, p.
 366.
- 1846 A
 Description of some of the bones of
 the *Zeuglodon cetoides* of Professor Owen.
 Amer. Quart. Jour. Agricult. and Sci., iii,
 pp. 223-231, with pls. i, ii.
- 1851 A
 Description of some of the bones of
 the *Zeuglodon cetoides* of Professor Owen.
 Pp. 1-6. Year and place of publication un-
 known. Copy deposited in Smithsonian Insti-
 tution November 13, 1851.
- 1856 A
 Geological report on the midland
 counties of North Carolina. Illustrated
 with engravings.
 Pp. i-xx; 1-352; pls. 1-8. New York, Geo. P.
 Putnam & Co. Raleigh, Henry D. Turner, 1856.
 Chap. xi, pp. 298-323, and p. 347 are devoted
 to the "animal remains of the Coal Measures
 of the Deep and Dan rivers," and to a "notice
 of the vertebral remains of the Bristol con-
 glomerate."
- 1857 A
 American geology, containing a state-
 ment of the principles of the science,
 with full illustrations of the character-
 istic American fossils, with an atlas and
 a geological map of the United States.
 Part vi, pp. i-x; 1-152, with pls. i-x, and 114
 figs. in the text.
- 1858 A
 Fossils of the sandstones and slates of
 North Carolina.
 Proc. Amer. Assoc. Adv. Sci., 11th meeting,
 Montreal, 1857, pp. 76-80.

- Emmons, Ebenezer**—Cont'd. 1858 B
 Report of the North Carolina Geolog-
 ical Survey. Agriculture of the eastern
 counties, together with descriptions of
 the fossils of the marl beds.
 Illustrated by engravings. Raleigh, 1858.
 Pp. i-xv; 1-314.
 Chapters xv-xvii are devoted to descriptions
 of the fossil vertebrates, and there are furnished
 83 woodcuts in the text.
- 1860 A
 Manual of geology. Second edition.
 Pp. i-viii; 1-297, with 218 figs. New York,
 1860.
- Etheridge, Robert, and Willett, Henry.**
 1889 A
 On the dentition of *Lepidotus maxi-
 mus*, etc.
 Quart. Jour. Geol. Soc., xiv, pp. 356-358,
 with pl. xiv.
- Evermann, B. W.** 1893 A
 A skeleton of Steller's sea-cow.
 Science, xxi, p. 59.
 See also **Jordan and Evermann.**
- Ewart, J. C.** 1894 A
 The development of the skeleton of
 the limbs of the horse, with observa-
 tions on polydactyly.
 Jour. Anat. Physiol., xxviii, pp. 236-256,
 with 3 pages of figs; 342-369, with pl. xii.
- 1894 B
 The second and fourth digits in the
 horse; their development and subse-
 quent degeneration.
 Proc. Roy. Soc. Edinburgh, xx, pp. 185-191.
 The author claims to have found these ele-
 ments in the fetus of the horse.
- Eyerman, John.** 1886 A
 Footprints on the Triassic sandstone
 (Jura-Trias) of New Jersey.
 Amer. Jour. Sci. (3), xxxi, p. 72.
- 1889 A
 Notes on geology and mineralogy.
 Proc. Acad. Nat. Sci. Phila., 1889, pp. 32-35.
 Describes footprints from Jura-Trias of New
 Jersey.
- 1890 A
 Bibliography of North American ver-
 tebrate palæontology for the year 1889.
 Amer. Geologist, v, pp. 250-253.
- 1891 A
 Bibliography of North American ver-
 tebrate palæontology for the year 1890.
 Amer. Geologist, vii, pp. 231-238.
- 1891 B
 A catalogue of the palæontological
 publications of Joseph Leidy, M. D.,
 LL. D.
 Amer. Geologist, viii, pp. 333-342.

Eyerman, John—Continued. 1892 A
Bibliography of North American vertebrate palæontology for the year 1891. Amer. Geologist, ix, pp. 249-256.

1893 A
Bibliography of North American vertebrate palæontology for the year 1892. Amer. Geologist, xi, pp. 388-393.

1894 A
Preliminary notice of a new species of *Temnocyon*, and a new genus from the John Day Miocene of Oregon. Amer. Geologist, xiv, pp. 320, 321.
Descriptions of *T. ferox* and new genus *Hypotemnodon*, type *Temnocyon coryphæus* Cope.

1896 A
The genus *Temnocyon* and a new species thereof, and the new genus *Hypotemnodon*, from the John Day Miocene of Oregon. Amer. Geologist, xvii, pp. 267-287.

Falconer, Hugh. 1857 A
Description of two species of the fossil mammalian genus *Plagiulax* from Purbeck. Quar. Jour. Geol. Soc. Lond., xiii, pp. 261-282, with 17 figs. in the text.

1857 B
On the species of mastodon and elephant occurring in the fossil state in Great Britain. Part I. Mastodon. Quar. Jour. Geol. Soc. Lond., xli, pp. 307-360, with pls. xi-xii.
Contains diagnoses of the genera *Mastodon* and *Elephas*, the former being divided into the subgenera *Trilophodon* and *Tetralophodon*, the latter genus into *Segodon*, *Loxodon*, and *Euelephas*.

1862 A
On the disputed affinity of the mammalian genus *Plagiulax*. Quar. Jour. Geol. Soc., xviii, pp. 348-369, with 20 figs. in the text.

1865 A
On the species of mastodon and elephant occurring in the fossil state in Great Britain. Part II. Quar. Jour. Geol. Soc., xxi, pp. 253-332.

1868 A
Palæontological memoirs and notes. Vol. i, Fauna antiqua sivalensis, pp. 1-590, with pls. i-xxxiv and 16 text figs.; vol. ii, Mastodon, Elephant, Rhinoceros, etc., pp. 1-675, with pls. i-xxxviii and text figs. 1-9. London, 1868.

Compiled by Charles Murchison, with a biographical sketch of Hugh Falconer.

Falconer, Hugh, and Cautley, Proby T. 1846 A
Fauna antiqua sivalensis, being the fossil zoology of the Sewalik Hills in the north of India. 1. *Pachydermata*. Elephant and mastodon.

Pp. 1-64, with pls. i-lvi and description of plates forming pp. 1-77.

Farr, Marcus S. 1896 A
Notes on the osteology of the White River horses.

Proc. Amer. Philos. Soc., xxxv, pp. 147-175, with 6 figs. in the text.

Abstract in Princeton Univ. Bull., ix, pp. 17-18, 1897; reviewed by Schlosser in Neues Jahrbuch Mineral., 1899, ii, pp. 316-319.

Farrington, Oliver C. 1899 A
A fossil egg from Dakota. Puba. Field Columb. Mus., Geology, i, pp. 193-200, with pls. xx-xxi.

Faujas-Saint-Fond, Barth. 1802 A
Sur deux espèces de bœufs on trouve les crânes fossiles en Allemagne, en France, en Angleterre, dans le nord de l'Amerique et dans d'autres contrées. Ann. Mus. d'Hist. Nat. Paris, 1802, ii, pp. 188-200, with pls. xliii, xlv.
Contains description and plate of fossil bison (*B. latifrons*).

Featherstonhaugh, G. W. 1831 A
Rhinocerosides alleghaniensis. Monthly Amer. Jour. Geology and Nat. Sci., i, pp. 10-12, with pl. i.

Felix, Johannes. 1890 A
Beiträge zur Kenntniss der Gattung *Protosphyrapta* Leidy. Zeitschr. deutsch. geol. Gesellsch., xliii, pp. 278-302, with pls. xii-xiv.

Felix, Johannes and Lenk, H. 1891 A
Uebersicht über die geologischen Verhältnisse des mexicanischen Staats Puebla. Palæontographica, xxxvii, pp. 117-129, with pl. xxx.

Field, Roswell. 1860 A
Ornithichnites, or tracks resembling those of birds. Amer. Jour. Sci. (2), xxix, pp. 361-363.

1860 B
Ornithichnites. Proc. Amer. Assoc. Adv. Sci., 13th meeting, Springfield, Mass., 1860, pp. 337-340.
The tracks regarded as belonging to *Reptilia*.

1860 C
Communication on the footmarks of the Connecticut River sandstones. Proc. Boston Soc. Nat. Hist., vii, p. 316.

Filhol, Henri.

1872 A

Récherches sur les mammifères fossiles des depots de phosphate de Chaux dans les départements du Lot, du Tarn et de Tarn-et-Garonne.

Annales sci. géol., iii, art. 7, pp. 1-31, with pls. 13-19.

1874 A

Nouvelles observations sur les mammifères des gisements de phosphates de Chaux (Lémuriens et Pachylémuriens).

Annales sci. géol., v, art. 4, pp. 1-36, with pls. vii and viii.

Devoted especially to descriptions of genera *Necrolemur* and *Palseolemur*. Pl. viii contains 4 figures of *Adapis*.

1876 A

Recherches sur les phosphorites du Quercy. Étude des fossiles qu'on y rencontre et spécialement des mammifères.

Annales sci. géol., vii, art. 7, pp. 1-220, with pls. x-xxxvi.

1877 A

Recherches sur les phosphorites du Quercy. Étude des fossiles qu'on y rencontre et spécialement des mammifères.

Annales sci. géol., viii, art. 1, pp. 1-340, with pls. 1-xxviii.

1881 A

Étude des mammifères fossiles de Saint-Gérand-le-Puy (Allier). Seconde partie (1).

Annales sci. géol., xi, pp. 1-86, with pls. 1-xx.

1882 A

Étude des mammifères fossiles de Ronzon (Haute-Loire).

Annales sci. géol., xii, art. 3, pp. 1-271, with pls. vi-xxxi.

1882 B

Observations relatives aux caractères ostéologiques de certaines espèces d'*Eudyples* et de *Spheniscus*.

Bull. Soc. Philomatique de Paris (7), vii, pp. 226-235.

1883 A

Notes sur quelques mammifères fossiles de l'époque miocène.

Archives du Muséum d'Histoire Naturelle de Lyon, iii, pp. 1-97, pls. i-v.

1. Observations relatives à divers mammifères fossiles provenant de Saint-Gérand-le-Puy (Allier), pp. 1-42.

2. Observations relatives au carnassiers signalé par Jourdan sous le nom de *Dinocyon thevardi*, pp. 43-53.

3. Observations relatives à divers carnassiers

Filhol, Henri—Continued.

fossiles provenant de la Grive-Saint Alban (Isère), pp. 56-69.

4. Observations relatives aux chiens actuels et aux carnassiers fossiles s'en approchant le plus, pp. 70-97.

1883 B

Observations relatives au mémoire de M. Cope intitulé: Relation des horizons renfermant des débris d'animaux vertébrés fossiles en Europe et en Amérique.

Annales sci. géol., xiv, art. 5, pp. 1-51.

1884 A

De la restauration du squelette d'un *Dinoceras*.

Annales sci. géol., xvi, art. 4, pp. 1-10, with pl. ix.

Based especially on Dr. Osborn's study of *Iozolophodon*, in Osborn, H. F., 1881 A.

1885 A

Observations sur le mémoire de M. Cope intitulé: Relations des horizons renfermant des débris d'animaux vertébrés fossiles en Europe et en Amérique.

Annales sci. géol., xvii, art. 5, pp. 1-18, with pl. vi.

1888 A

Études sur les vertébrés fossiles d'Issel (Aude).

Mem. soc. géol. de France (3), v, pp. 1-188, with pls. 1-21.

Devoted principally to the genus *Lophiodon* and its species and to *Pachynolophus*.

1888 B

Caractères de la face du *Machairodus bidentatus*.

Bull. Soc. Philomat. de Paris (7), xii, pp. 129-134.

1891 A

Études sur les mammifères fossiles de Sansan.

Annales sci. géol., France, xxi, pp. 1-319, with pls. 1-xlvi.

1891 B

De la dentition supérieure de l'*Anthracotheirus minimum*.

Bull. Soc. Philomat., Paris (8), iii, pp. 89-91, with 2 figs. in the text.

1894 A

Observations concernant quelques mammifères fossiles nouveaux du Quercy.

Annales Sci. Nat., Zool. (7), xvi, pp. 129-150, with 21 figs.

Describes remains regarded as belonging to *Dasyproctidae*, *Manidae*, and *Orycteropodidae*.

- Fisher, G. J.** 1859 A
Account of an antler of the reindeer found at Sing Sing, N. Y.
Proc. Acad. Nat. Sci., Phila., xi, p. 194.
- Fleischmann, A.** 1890 A
Die Stammesverwandschaft der Nager (*Rodentia*) mit den Beuteltieren (*Marsupialia*).
Sitzungsber. k.-p. Akad. Wissensch., Berlin, 1890, pp. 299-305.
- 1891 A
Die Grundform der Backzähne bei Säugethieren und die Homologie der einzelnen Höcker.
Math. naturwiss. Mittheil. k.-p. Akad. Wissensch., Berlin, 1891, pp. 406-417, with pl. v.
- Flores, Eduardo.** 1897 A
Sul sistema dentario del genere *Anthracotherium* Cuv.
Bull. soc. geol. Ital., xvi, pp. 92-96.
- Flot, L.** 1886 A
Description de *Halitherium fossile*, Gervais.
Bull. soc. géol. de France (3), xiv, pp. 483-518, pls. xxvi-xxviii.
- 1886 B
Note sur le *Prohalicore dubaleni*.
Bull. soc. géol. de France (3), xv, pp. 134-138, pl. i.
- Flower, W. H.** 1864 A
Notes on the skeletons of whales in the principal museums of Holland and Belgium, with descriptions of two species apparently new to science.
Proc. Zool. Soc. Lond., 1864, pp. 384-426, with 17 figs. in the text.
- 1867 A
Description of the skeleton of *Inia geoffrensis* and of the skull of *Pontoporia blainvillii*, with remarks on the systematic position of these animals in the order *Cetacea*.
Trans. Zool. Soc. Lond., vi, pp. 87-116, with pls. xxv-xxviii.
- 1868 A
On the development and succession of the teeth in the armadillos (*Dasypodidae*).
Proc. Zool. Soc. Lond., 1868, pp. 378-380.
- 1868 B
On the osteology of the cachelot, or sperm whale (*Physeter macrocephalus*).
Trans. Zool. Soc. Lond., vi, pp. 309-372, with pls. lv-lxi and 13 figs. in the text.
- Flower, W. H.—Continued.** 1869 A
Remarks on the homologies and notation of the teeth of *Mammalia*.
Jour. Anat. and Physiol., iii, pp. 262-263, with 6 figs. in the text.
- 1869 B
On the value of the characters of the base of the cranium in the classification of the order *Carnivora*, and on the systematic position of *Bassaris* and other disputed forms.
Proc. Zool. Soc. Lond., 1868, pp. 4-37, with 15 text figs.
- 1871 A
On the ziphoid whales.
Nature, v, pp. 103-106.
- 1871 B
On the composition of the carpus of the dog.
Jour. Anat. and Physiol., vi, pp. 62-64, with 1 text fig.
- 1872 A
On the recent ziphoid whales, with a description of the skeleton of *Berardius arnouxii*.
Trans. Zool. Soc. Lond., viii, pp. 203-234, with pls. xxvii-xxix.
- 1873 A
Hunterian lectures. *Artiodactyla*.
Nature, vii, pp. 428-430.
Abstract of three lectures.
- 1874 A
On the structure and affinities of the musk deer (*Moschus moschiferus*).
Proc. Zool. Soc. Lond., 1874, pp. 159-190, with 14 figs. in the text.
- 1876 A
On some cranial and dental characters of the existing species of rhinoceroses.
Proc. Zool. Soc. Lond., 1876, pp. 443-467, with 4 figs. in the text.
- 1876 B
Hunterian lectures on the relations of extinct to existing *Mammalia*.
Nature, xlii, pp. 307-308; 327-328; 350-352; 387-388; 409-410; 449-450; 487-488; 513-514; vol. xiv, p. 11.
Abstract of a course of lectures at the Royal College of Surgeons.
- 1876 C
The extinct animals of North America.
Proc. Roy. Institution, Great Britain, viii, pp. 103-125, with 3 figs. in the text.
A popular lecture on the fossil *Mammalia* of North America.

Flower, W. H.—Continued. 1881 A
Horse. Part I. Zoology and anatomy.

Encyclop. Brit., ed. 9, xii, pp. 172-181, with 6 figs. in the text.

To this article is subjoined a bibliography of the subject.

1882 A

On the mutual affinities of the animals composing the order *Edentata*.

Proc. Zool. Soc. Lond., 1882, pp. 356-367.

1882 B

Lemur.

Encyclop. Brit., ed. 9, xiv, pp. 440-445, with 6 text figs.

A portion of this article is devoted to extinct *Lemuroidea*.

1883 A

On the arrangement of the orders and families of existing *Mammalia*.

Proc. Zool. Soc. Lond., 1883, pp. 178-186.

1883 B

On the characters and divisions of the family *Delphinidae*.

Proc. Zool. Soc. Lond., 1883, pp. 466-513, with 9 figs. in the text.

1883 C

Mammoth.

Encyclop. Brit., ed. 9, xv, pp. 447-448, with 2 figs. in the text.

1883 D

Mammalia.

Encyclop. Brit., ed. 9, xv, pp. 347-446, with 123 figs. in the text.

This article treats of the anatomy and classification of the *Mammalia*, together with general descriptions of the various orders and families. The portions on the *Insectivora*, *Chiroptera*, and *Rodentia* were furnished by Dr. G. E. Dobson.

1885 A

An introduction to the osteology of the *Mammalia*. Third edition, revised with the assistance of Hans Gadow.

London: Macmillan & Co., 1885, pp. 383, figs. 134.

Flower, W. H. and Lydekker, R. 1891 A

An introduction to the study of mammals living and extinct.

London, pp. 763, figs. 357. 8vo. 1891.

Forbes, Henry O. 1893 A

Observations on the development of the rostrum of the cetacean genus *Mesoplodon*, with remarks on some of the species.

Proc. Zool. Soc. Lond. 1893, pp. 216-236, with pls. xii-xv and 1 page of text figs.

Forahay, C. G. 1846 A

[Communication regarding cranium of bear found near Natchez, Miss., and supposed to be that of the polar bear.]

Proc. Bost. Soc. Nat. Hist., ii, p. 163.

Foster, J. W. 1837 A

Miscellaneous observations made during a tour in May, 1835, to the falls of the Cuyahoga, near Lake Erie; extracted from the diary of a naturalist.

Amer. Jour. Sci., xxxi, pp. 1-84.

Description of a fossil "*Ovis mammillaris*," figs. 19, and of a fossil beaver (*Castoroides*), figs. 16-18.

1838 A

Organic remains.

2d annual report Geol. Surv. Ohio, pp. 79-83, with text figs. A-D.

A portion of Foster's report to the State geologist.

1839 A

Head of *Mastodon giganteum*.

Amer. Jour. Sci., xxxvi, pp. 189-191, with 1 fig.

1849 A

Remarks on geological position of the mastodon.

Proc. Nat. Hist. Soc. Boston, iii, pp. 111-117.

Accompanied by remarks by Professor Rogers, Dr. Pickering, and Mr. Desor.

1857 A

On the geological position of the deposits in which occur the remains of the fossil elephant of North America.

Proc. Amer. Assoc. Adv. Sci., 10th meeting, Albany, 1856, pp. 148-169.

1872 A

A new species of elephant.

Nature, vi, p. 443.

Reports the proposal before Amer. Soc. Adv. Sci., by Foster, of a supposed new species of fossil elephant from Indiana, *E. mississippiensis*. No description given.

Foulke, William P. 1858 A

[Statement respecting fossil bones of *Hadrosaurus*.]

Proc. Acad. Nat. Sci. Phila., 1858, pp. 213-215.

Fraas, Eberhard. 1885 A

[Review of W. Dames: Ueber *Archaeopteryx* in Palaeontologische Abhandlungen.]

Neues Jahrbuch Min., Geol., und Palaeontol., i, 1885, pp. 470-472. Referate.

See Dames, W., 1884 B.

1888 A

Ueber die Finne von *Ichthyosaurus*.

Jahreshefte Ver. f. vaterl. Naturk. Württemberg, xlv, pp. 280-303, with pl. vii.

- Fraas, Eberhard**—Continued. 1889 A
Die Labyrinthodonten der schwäbischen Trias.
Palaeontographica, xxxvi, 1-158, with pls. 1-xvii.
- 1891 A
Die Ichthyosaurier der Süddeutschen Trias- und Jura- Ablagerungen.
Pp. 1-81, with pls. 1-xiv.
Contains a history of this subject and a discussion of the anatomy of Ichthyosaurs.
Pp. 80-81 are occupied by a list of papers and memoirs on the *Ichthyosauria*.
- 1892 A
The paddles and fins of *Ichthyosaurus*.
Geol. Magazine (3), ix, pp. 516-517, with 2 figs. in the text.
- 1892 B
Ichthyosaurus numismalis E. Fraas.
Jahreshefte Ver. f. vaterl. Naturk. Württemberg, xlviii, pp. 22-31.
- 1894 A
Die Hautbedeckung von *Ichthyosaurus*.
Jahreshefte Ver. f. vaterl. Naturk., Württemberg, l., pp. 493-497, with pl. v.
- 1896 A
Neue Selachier-Reste aus dem oberen Lias von Holzmaden in Württemberg.
I. *Hybodus hauffianus* E. Fraas (= *Hybodus reticulatus* Quenstedt, non Agassiz). II. *Palaeospinax smith-woodwardii* E. Fraas.
Jahreshefte Ver. f. vaterl. Naturk. Württemberg, lli, Abh., pp. 1-25, with pls. 1, li.
- 1898 A
Ein neues Exemplar von *Ichthyosaurus* mit Haut-Bekleidung.
Földtani Közlemény, xxviii, pp. 169-173, with pl. li.
- 1899 A
Proganochelys quenstedtii Baur (*Psammodochelys keuperina* Qu.). Ein neuer Fund der Keuperschildkröte aus dem Stubensandstein.
Jahreshefte Ver. f. vaterl. Naturk. Württemberg, lv, pp. 401-424, with pls. v-viii, and 5 figs. in the text.
- Fraas, Oscar.** 1861 A
Ueber *Semimotus* und einige Keuper-Conchylien.
Jahreshefte Ver. f. vaterl. Naturk. Württemberg, xvii, pp. 81-101.
- 1867 A
Dyoplax arenaceus, ein neuer Stuttgarter Keuper-Saurier.
Jahreshefte Ver. f. vaterl. Naturk. Württemberg, xxiii, pp. 109-112, with pl. i.

- Franque, Henricus.** 1847 A
Nonnulla ad Amiam calvam accuratius cognoscendam.
Pp. 12, with 1 pl.
Inaugural dissertation.
- Frenkel, F.** 1873 A
Beiträge zur anatomischen Kenntniss des Kreuzbeines der Säugethiere.
Jenaische Zeitschr. f. med. Naturwiss., (1) vii pp. 391-437, with pls. xxi, xxii.
- Fricke, Karl.** 1875 A
Die fossile Fische aus der Oberen Juraschichten von Hannover.
Palaeontographica, xxii, 347-398, pls. xviii-xxii.
- Fritsch, Anton.** 1876 A
Ueber die Fauna der Gaskohle des Pilsner und Rakonitzer Beckens.
Sitzungsber. k. böhmischen Gesellsch. der Wissensch. in Prag, Jahrgang 1876, pp. 70-79.
- 1878 A
Die Reptilien und Fische der böhmischen Kreideformation.
Pp. i, li, 1-46, with 10 pls. and 66 wood cuts. Prag., 1878.
- 1883 A
Fauna der Gaskohle und der Kalksteine der Permformation Böhmens.
Pp. 1-182, with pls. i-xlviii.
Pp. 1-92 were published in 1879; pp. 93-126, 1880; pp. 127-158, 1881; pp. 159-182, 1883.
- 1888 A
Ueber die Brustflosse von *Xenacanthus decheni*, Goldf.
Zoolog. Anzeiger, xi, pp. 113-114, with 1 fig. in the text.
- 1889 A
Ueber *Xenacanthus*.
Zoolog. Anzeiger, xii, pp. 386-387.
- 1889 B
Fauna der Gaskohle und der Kalksteine der Permformation Böhmens. Zweiter Band. *Stegocephali* (Schluss). *Dipnoi*, *Selachii* (Anfang).
Pp. 1-114, with 42 pls. and 79 text figs.
Pp. 1-32 are dated 1885; pp. 33-64, 1886; pp. 65-92, 1888; pp. 93-114, 1889.
- 1890 A
Über Pterygopodien permischer Haifische der Gattungen *Pleuracanthus* und *Xenacanthus*.
Zoolog. Anzeiger, xlii, pp. 318-320, with 1 fig. in text.
- 1890 B
Preliminary notes on the palaeozoic Elasmobranchs, *Pleuracanthus* and *Xenacanthus*.
Geol. Magazine, (3), vii, p. 566.

Fritsch, Anton—Continued. 1891 A
Restorations of the Palaeozoic Elasmobranch genera *Pleuracanthus* and *Xenacanthus*.

Report Brit. Assoc. Adv. Sci., 60th meeting, Leeds, 1890, p. 822.

Über die *Xenacanthiden*.

Zoolog. Anzeiger, xiv, pp. 21-22 (with restored figure of an old female of *X. decheni*).

Fauna der Gaskohle und der Kalksteine der Permformation Böhmens.

Vol. iii, pp. 1-132, pls. 91-132, and text figs. 189-310.

Pp. 1-48 are dated 1890; pp. 49-80, 1893; pp. 81-104, no date, 1894; pp. 105-132, 1895.

This volume is devoted to the genus *Pleuracanthus*, the *Acanthodidae*, *Megalichthys*, *Palaeoniscidae*, etc.

Review of part ii by A. S. Woodward, in Natural Science, ii, pp. 435-438, with 3 figs.

Ueber neue Wirbelthiere aus der Permformation Böhmens, nebst einer Uebersicht der aus derselben bekannt gewordenen Arten.

Sitzungsber. k. böhm. Gesellsch. Wissensch., 1895, lii, pp. 1-17, with 1 text fig.

Fry, Edward. 1846 A
On the osteology of the active gibbon (*Hylobates agilis*).

Proc. Zool. Soc. Lond., 1846, pl. xiv, pp. 11-18.

Fürbringer, Max. 1885 A
Über das Schulter- und Ellenbogengelenk bei Vögeln und Reptilien.

Morpholog. Jahrbuch, xi, pp. 118-120.

Über die Nervenkanäle im Humerus der Amnioten.

Morpholog. Jahrbuch, xi, pp. 484-486.

Untersuchungen zur Morphologie und Systematik der Vögel, zugleich ein Beitrag zur Anatomie der Stütz- und Bewegungsorgane.

Pp. 1-xlix; 1-1713, with 30 pls. Folio, Amsterdam, 1888.

If under the various genera and higher groups citations to particular pages of Fürbringer's work are found, it must be understood only that on those pages some special treatment is given such groups. The same genera and higher groups may be found mentioned anywhere throughout this splendid volume.

Untersuchungen zur Morphologie und Systematik der Vögel, zugleich ein

Fürbringer, Max—Continued.

Beitrag zur Anatomie der Stütz- und Bewegungsorgane.

Biolog. Centralbl., ix, pp. 204-217, 385-396, 499-510.

Untersuchungen zur Morphologie und Systematik der Vögel, zugleich ein Beitrag zur Anatomie der Stütz- und Bewegungsorgane.

Biolog. Centralbl., x, pp. 48-62, 326-341, 373-377, 491-504, 754-767.

Ueber die systematische Stellung der *Hesperornithidae*.

Monatsschrift deutsch. Verein z. Schutze d. Vogelwelt, xv, pp. 488-513.

Untersuchungen zur Morphologie und Systematik der Vögel, etc.

Biolog. Centralbl., xii, pp. 146-157; 722-729.

L. Stejneger's Vogelsystem.

Jour. Ornithologie (4), xx, pp. 137-148.

Untersuchungen zur Morphologie und Systematik der Vögel, zugleich ein Beitrag zur Anatomie der Stütz- und Bewegungsorgane. (Neunzehntes Stück).

Biolog. Centralbl., xvi, pp. 497-511.

Zur vergleichenden Anatomie des Brustschulterapparates und der Schultermuskeln; iv Teil.

Jenaische Zeitschr. f. Naturwiss. Jena, xxxiv, pp. 215-718, with pls. xiii-xvii and 141 figs. in the text.

This work deals with the anatomy of the shoulder-girdle of reptiles. Pp. 597-682 were issued separately with the title "Beitrag zur Systematik und Genealogie der Reptilien," pp. 1-88; Inhaltsübersicht pp. 89-91.

Gadow, Hans. 1877 A
Anatomie des *Phenicopterus roseus* Pall., und seine Stellung im System.

Jour. Ornithologie, xxv, pp. 382-396.

On the anatomical differences in the three species of *Rhea*.

Proc. Zool. Soc. Lond., 1886, pp. 308-322, with 11 woodcuts in the text.

Remarks on the numbers and on the phylogenetic development of the remiges of birds.

Proc. Zool. Soc. Lond., 1888, pp. 655-667.

- Gadow, Hans**—Continued. 1889 A
On the modifications of the first and second visceral arches, with especial reference to the homologies of the auditory ossicles.
Philosoph. Trans. Roy. Soc. Lond., clxxix, pp. 461-486, pls. lxxi-lxxiv.
- 1891 A
Vögel.
Bronn's Klassen und Ordnungen des Thier-Reichs, vi, pp. 91-1008, with pls. xviii-lxx.
Pp. 1-90 of this work, written by E. Selenka, and published in 1869, are devoted to the osteology of birds. Pages 984-996 treat of the development of the skeleton. On pp. 964-989 is an important list of works on the development of the skeleton.
- 1892 A
On the classification of birds.
Proc. Zool. Soc. Lond., 1892, pp. 229-256.
- 1896 A
On the evolution of the vertebral column of *Amphibia* and *Amniota*.
Philos. Trans. Roy. Soc. Lond. (B), clxxxvii, pp. 1-57, with 56 figs. in the text.
Appended is a list of 93 memoirs and papers on the subject.
- 1896 B
[Articles in Newton's Dictionary of Birds, 1893-1896.]
- 1897 A
Remarks on the supposed relationship of birds and dinosaurs.
Proc. Cambridge Philos. Soc., ix, pp. 204-208.
- 1898 A
A classification of *Vertebrata*, recent and extinct.
London, Adam and Charles Black, 1898, 8vo, pp. i-x; 1-82.
- 1899 A
Orthogenetic variation in the shells of *Chelonia*.
Proc. Cambridge Philosoph. Soc., x, pp. 35-37.
- and **Abbott, E. C.** 1895 A
On the evolution of the vertebral column of fishes.
Philosoph. Trans. Royal Soc., Lond. clxxxvi, pp. 163-221, illustrated by numerous text-figs.
- Garman, Samuel.** 1884 A
A peculiar selachian.
Science, iii, pp. 116-117, with 1 woodcut.
Describes *Chlamydoselachus anguineus* Garman.
- 1884 B
The oldest living type of vertebrate, *Chlamydoselachus*.
Science, iii, p. 345.
Rejoinder to Prof. E. D. Cope.
- Garman, Samuel**—Continued. 1884 C
The oldest living type of vertebrate.
Science, iv, p. 484.
Discusses relationships of *Chlamydoselachus*; also includes a classification of the *Selachii*.
- 1884 D
An extraordinary shark.
Bull. Essex Institute, xvi, pp. 47-52, with 1 page of figs.
Description of new species and genus, *Chlamydoselachus anguineus* Garman, belonging to the new family *Chlamydoselachidae*.
- 1885 A
On the frilled shark.
Proc. Amer. Assoc. Adv. Sci., 33d meeting, Phila., 1884, pp. 537-538.
Refers to *Chlamydoselachus anguineus*.
- 1885 B
Chlamydoselachus anguineus Garman.
A living species of cladodont shark.
Bull. Mus. Comp. Zool., xii, pp. 1-35, with pls. i-xx.
- 1892 A
The *Discoboli*, *Cyclopteridae*, *Liparopsidae*, and *Liparididae*.
Mem. Mus. Comp. Zool., xiv, No. 2, pp. 1-96, pls. i-xliii.
- Garrod, A. H.** 1873 A
On the affinities of *Dinoceras* and its allies.
Nature, vii, p. 481.
Places *Dinoceras* among *Artiodactyla*.
- 1873 B
On the order *Dinocerata* (Marsh).
Jour. Anat. Physiol., vii, pp. 267-270, with 1 fig.
A statement of Marsh's results; nothing new is put forth.
- 1876 A
On some anatomical characters which bear upon the major divisions of the passerine birds. Part I.
Proc. Zool. Soc. Lond., 1876, pp. 506-519, with pls. xlviii-lviii.
- 1877 A
Note on the solid-hoofed pigs in the society's collection.
Proc. Zool. Soc. Lond., 1877, p. 33.
- Gaudin, C.**
See **Pictet, Gaudin and Harpe.**
- Gaudry, A.** 1872 A
Sur une dent d'*Elephas primigenius* trouvée par M. Pinard dans l'Alaska.
Comptes rend. Acad. Paris, lxxv, pp. 1281-1282.
- 1873 A
Sur une dent d'*Elephas primigenius* trouvée par M. Pinard dans l'Alaska.
Bull. Soc. Géolog. de France (3), i, pp. 123-124.

- Gaudry, A.**—Continued. 1875 A
 Sur la découverte de batraciens dans le terrain primaire.
 Bull. Soc. Géolog. de France (3), iii, pp. 299-306, pls. vii, viii.
- 1875 B
 Sur quelques pièces de mammifères fossiles qui ont été trouvées dans les phosphorites du Quercy.
 Jour. Zoologie, iv, pp. 518-527, with pl. xviii.
- 1877 A
 Letter to Count de Saporita on North American vertebrate palaeontology.
 Amer. Naturalist, xi, pp. 184-186.
- 1878 A
 Sur les reptiles des temps primaires.
 Comptes rend. Acad. Sci. Paris, lxxxvii, pp. 966-968.
 Describes structure of the vertebrae of *Actinodon* and the occurrence of pleurocentra therein.
- 1878 B
 Les enchainements du monde animal dans les temps géologiques. Mammifères tertiaires.
 Paris, 1878. 8°. Pp. 1-296, with 312 figs. in the text.
- 1883 A
 Les enchainements du monde animal dans les temps géologiques. Fossiles primaires.
 Paris, 1883. Pp. 1-319, with 285 figs. in the text.
 Pp. 218-260 are devoted to the fishes; pp. 251-288 to the batrachians and the reptiles.
- 1885 A
 Sur les dinocératidés que M. Marsh a recueillis dans l'éocène du Wyoming.
 Comptes rend. Acad. Paris, ci, pp. 718-720.
- 1889 A
 Restauration du squelette du *Dinoceras*.
 Comptes rend. Acad. Paris, cviii, p. 1292.
- 1890 A
 Remarques sur le nom générique d'*Hipparion*.
 Bull. Soc. Géolog. de France (3), xviii, pp. 189-191.
- 1890 B
 Apparences d'inégalité dans le développement des êtres de l'ancien et du nouveau continent.
 Comptes rend. Acad. Paris, cx, pp. 482-483.
- 1890 C
 Les enchainements du monde animal dans les temps géologiques. Fossiles secondaires.
 8vo, pp. 1-823, with 403 figs. in the text; Paris, 1890.
 Pp. 169-306 of this work are devoted to the *Vertebrata*.
- Gaudry, A.**—Continued. 1891 A
 Similitudes dans la marche de l'évolution sur l'ancien et le nouveau continent.
 Bull. Soc. Géolog. de France (3), xix, pp. 1024-1085.
- 1891 B
 Quelques remarques sur les mastodontes à propos de l'animal du Chérichira.
 Mém. Soc. Géolog. de France, ii, Mém. No. 8, pp. 1-6, with pls. i, ii.
- 1892 A
 Les Pythonomorphes de France.
 Mém. Soc. Géolog. de France. Paléontologie, iii, No. 10, pp. 1-13, with pls. xvii, xviii.
- 1895 A
 Sur les cornes des dinocératidés.
 Actes Soc. Scient., Châl. v, pp. cxlii-cxliii.
- 1897 A
 La dentition des ancêtres des tapirs.
 Bull. Soc. Géolog. de France (3), xxv, pp. 315-325, with pl. x.
 See also Comptes rendus Acad. Sci., cxxv, pp. 756-756.
- Gaupp, Ernst.** 1891 A
 Zur Kenntniss des Primordial-Craniums der Amphibien und Reptilien.
 Verhandl. anatom. Gesellsch., 5th meeting, Munich, 1891, pp. 114-120.
- 1894 A
 Zur vergleichenden Anatomie der Schläfengegend am knöchernen Wirbelthiere.
 Schwalbe's Morpholog. Arbeiten, iv, pp. 77-131, pls. vi, vii.
 Cites the literature of the subject.
- 1895 A
 Mittheilungen zur Anatomie des Frosches.
 Anatom. Anzeiger, xi, pp. 1-8, with 5 figs.
 This paper treats of the carpus and tarsus of the frog.
- 1895 B
 Ueber die Jochbogen-Bildungen am Schädel der Wirbelthiere.
 Jahresber. schles. Gesellsch. vaterl. Cultur, ii Abth., pp. 56-63.
- 1898 A
 Zur Entwicklungsgeschichte des Eidechschensköpels.
 Berichte naturforsch. Gesellsch. zu Freiburg i. B., x, pp. 302-316.
- 1900 A
 Das Chondrocranium von *Lacerta agilis*. Ein Beitrag zum Verständnis des Amniotenschädels.
 Merkel und Bonnets Anatom. Hefte, xv (Heft xlix), pp. 435-496, with pls. xlii-xlvii, and 23 figs. in the text.

- Gasley, Sayres.** 1830 A
Notice of osseous remains at Big Bone
Lick, Kentucky.
Amer. Jour. Sci. (1), xviii, pp. 139-141.
The above communication is an anonymous
one, but the author's name is given in Amer.
Jour. Sci., xx, p. 372.
- Gegenbaur, Carl.** 1864 A
Untersuchungen zur vergleichenden
Anatomie der Wirbelthiere. Erstes
Heft. Carpus und Tarsus.
Pp. 1-vi; 1-127, with 6 pls. Leipzig, 1864.
- 1865 A
Vergleichend-anatomische Bemerkungen über das Fuss skelet der Vögel.
Archiv f. Anat. Physiol. u. wissenschaft. Med.,
Jahrg. 1865, pp. 450-472, with 4 text figs.
- 1865 B
Untersuchungen zur vergleichenden
Anatomie der Wirbelthiere. Zweites
Heft: 1. Schultergürtel der Wirbel-
thiere. 2. Brustflosse der Fische.
Pp. 1-iv; 1-176, with 9 pls. Leipzig, 1865.
- 1872 A
Untersuchungen zur vergleichenden
Anatomie der Wirbelthiere. Drittes
Heft. Das Kopfskelet der Selachier; ein
Beitrag zur Erkenntniss der Genese des
Kopfskeletes der Wirbelthiere.
Pp. 1-x; 1-316, with 22 pls.
- 1872 B
Ueber das Archipterygium.
Jenaische Zeitschr. f. Med. u. Naturwiss.,
(1), vii, pp. 131-141, with pl. x.
- 1876 A
Zur Morphologie der Gliedmassen
der Wirbelthiere.
Morpholog. Jahrbuch, ii, pp. 396-420, with 4
figs. in the text.
- 1887 A
Die Metamerie des Kopfes und die
Wirbeltheorie des Kopfskeletes.
Morpholog. Jahrbuch, xliii, pp. 1-114.
Appended is a list of 59 titles of papers bear-
ing on the subject.
- 1895 A
Clavicula und Cleithrum.
Morpholog. Jahrbuch, xxiii, pp. 1-20, with
5 figs. in text.
- 1895 B
Das Flossenskelet der Crossoptery-
ger und das Archipterygium der Fische.
Morpholog. Jahrbuch, xxii, pp. 119-160, with
5 figs. in text.
- 1898 A
Vergleichende Anatomie der Wirbel-
thiere mit Berücksichtigung der Wir-
- Gegenbaur, Carl—Continued.**
bellosen. Erster Band. Einleitung,
Integument, Skeletsystem, Muskelsys-
tem, Nervensystem und Sinnesorgane.
Leipzig, 1896, 8vo; pp. i-xiv; 1-978, with 619
figs., some colored.
- Geinitz, Hans Bruno.** 1839 A
Characteristik der Schichten und
Petrefacten des sächsischen Kreidege-
birges.
Erstes Heft. Der Tunnel bei Obergau, etc.,
1839, pp. i-v; 1-29, with pls. i-viii. Zweites
Heft. A. Das Land zwischen dem Plauen'schen
Grunde bei Dresden und Dohna. B. Fische.
Crustaceen, Mollusken, 1840, pp. i-iv; 30-62,
with pls. ix-xvi. Drittes Heft. Die sächsisch-
böhmische Schweiz, die Oberlausitz und das
Innere von Böhmen, 1842, pp. 63-116; 1-xxvi,
with pls. xvii-xxiv.
- 1847 A
Koch's *Hydrarchos harlani*.
Neues Jahrbuch f. Mineralogie, 1847, pp.
47-49.
- 1860 A
Zur Fauna des Rothliegenden und
Zechsteins.
Zeitschr. deutsch. geol. Gesellsch., xii, pp.
467-470.
Refers to the dorsal spine of *Xenacanthus*
decheni.
- 1861 A
Dyas, oder die Zechsteinformation
und das Rothliegende. Heft 1. Die
animalische Ueberreste der Dyas.
Pp. vii-xviii; 1-342, with 23 pls.
- 1868 A
Die fossilen Fischschuppen aus dem
Plänerkalke in Strehlen.
Denkschr. Gesellsch. Natur-u. Heilkunde,
Dresden, 1868, pp. 33-48, with pls. 1-iv.
- 1875 A
Das Elbthalgebirge in Sachsen.
Zweiter Theil. Der mittlere und obere
Quader. VI. Würmer, Krebse, Fische
und Pflanzen.
Palaeontographica, xx, pp. 199-245, with pls.
xxxvii-xlvi.
- 1883 A
Die sogenannten Koprolithenlager
von Helmstedt, Büddenstedt und
Schleweke bei Harzburg.
Abhandl. naturwiss. Gesellsch. Isis in Dres-
den, i, pp. 3-14, with pl. 1, figs. 1-22.
- 1884 A
Ueber ein Graptolithen-führenden
Geschiebe mit *Cyathaspis* von Rostock.
Zeitschr. deutsch. geol. Gesellsch., xxxvi,
pp. 854-857, with pl. xxx.

Geinitz, Hans Bruno—Cont'd. 1885 A
Ueber Milchzähne der Mammuth,
(*Elephas primigenius*).

Festschrift naturw. Gesellsch. Isis in Dresden.
Feier 50 jährig. Bestehens, pp. 66-74, with pl.
iii.

The figures are those of the very young
animal.

Geinitz, H. B., and Deichmüller, J. V. 1882 A

Die Saurier der unteren Dyas von
Sachsen.

Palaeontographica, xxix, pp. 1-46, with
9 pls.

Geissler, Gustav. 1895 A

Ueber neue Saurier-Funde aus dem
Muschelkalk von Bayreuth.

Zeitschr. deutsch. geol. Gesellsch., xlvii,
pp. 331-356, with pls. xiii, xiv.

Describes various portions of the skeleton of
Nothosaurus.

Gemmellaro, Gaetano Géorgio. 1857 A

Ricerche sui pesci fossili della Sicilia.

Atti dell' Accademia naturali di Catania
(2), xiii, pp. 279-323, with pls. i-vi.

George, —. 1869 A

Études zoologiques sur les Hémionés
et quelques autres espèces chevalines.

Annales Sci. Naturelles, Zool. (5), xii, pp.
5-56, pls. 1-4.

Gervais, Paul. 1839 A

[Remarks on *Megatherium*.]

Bull. Soc. Géolog. de France, x, p. 142.

1850 A

Mémoire sur la famille des cétacés
Ziphioides et plus particulièrement sur
le *Ziphius longirostris* de la Méditer-
ranée.

Ann. Sci. Naturelles (3), xiv, pp. 1-11.

1853 A

Recherches sur l'ostéologie de plu-
sieurs espèces d'amphisbènes, et remar-
ques sur la classification de ces reptiles.

Ann. Sci. Naturelles (3), xx, pp. 298-314, with
pl. xv.

1855 A

Recherches sur les mammifères fos-
siles de l'Amérique méridionale.

Castelnau's Exped. Amer. du Sud., pp. 1-63,
with pls. iv-xiii.

1859 A

Zoologie et paléontologie français.
Nouvelles recherches sur les animaux
vertébrés dont on trouve les ossements
enfouis dans le sol de la France et sur

Gervais, Paul—Continued.

leur comparaison avec les espèces
propres aux autres régions du globe.
Deuxième édition, accompagnée d'un
atlas de 84 planches et de figures inter-
calées dans le texte.

Paris, 1859, pp. 1-viii; 1-544.

1862 A

Sur les *Squalodon*.

Bull. Acad. Roy. de Belgique (2), xiii, pp.
462-469.

Letter addressed to Van Beneden.

1871 A

Remarques sur l'anatomie des cétacés
de la division des Balénidés tirées de
l'examen des pièces relatives à ces ani-
maux que sont conservées au Muséum.

Nouv. Arch. du Mus. d'Hist. Nat. Paris, vii,
pp. 65-146, with pls. iii-ix.

1872 A

Ostéologie du *Sphargis luth* (*Sphargis
coriacea*).

Nouv. Arch. du Mus. d'Hist. Nat. Paris, viii,
pp. 199-228, with pls. v-ix.

An abstract of this memoir appeared in
Jour. Zoologie, ii, 1873, pp. 1-4.

1873 A

Recherches sur les Édentés tardi-
grades.

Jour. Zoologie, ii, pp. 463-469.

1874 A

Form typique des membres chez les
Équidés.

Jour. Zoologie, iii, pp. 300-307.

1874 B

Remarques sur les formes cérébrales
propres aux Thalassothériens.

Jour. Zoologie, iii, pp. 570-583.

1876 A

Remarques au sujet du genre *Phoco-
don* d'Agassiz.

Jour. Zoologie, v, pp. 62-70, with 2 figs. in
the text.

1876 B

Remarques au sujet du mémoire pré-
cédent [Marsh on *Brontotheriida*].

Jour. Zoologie, v, p. 255.

1878 A

Sur la dentition des Smilodons.

Comptes rend. Acad. Paris, lxxvii, pp. 582-
583.

See also Gervais and Ameghino;
Van Beneden and Gervais.

Gervais, H., and Ameghino, F. 1880 A
Les mammifères fossiles de l'Amérique du Sud.

Pp. 1-xi; 1-225. Buenos Aires and Paris: 1880. Contains list of about 300 fossil mammals, with diagnoses of new genera and species. About 80 of these species are regarded as new. See Branco, W., Jahresbuch Mineral., 1, 1883, p. 300.

Ghigi, Alessandro. 1900 A

Sui denti dei Tapiridi.

Verhandl. anat. Gesellsch., xiv (Pavia), pp. 17-29, with 9 figs. in the text.

These Verhandlungen are found in the Ergänzungsheft of Anatom. Anzeiger, xviii.

Gibbes, Robert W. 1845 A

Description of the teeth of a new fossil animal found in the Green-sand of South Carolina.

Proc. Acad. Nat. Sci. Phila., 1845, ii, pp. 254-256, pl. 1.

A notice of this paper is found in Amer. Jour. Sci., 1845, xlix, p. 216. Describes *Dorudon serratus*.

1846 A

On the fossil *Squalidæ* of the United States.

Proc. Acad. Nat. Sci. Phila., iii, pp. 41-43.

Contains a list of the species which this author had identified.

1847 A

Description of new species of *Squalidæ* from the Tertiary beds of South Carolina.

Proc. Acad. Nat. Sci. Phila., iii, pp. 266-268.

1847 B

On the fossil genus *Basilosaurus*, Harlan (*Zeuglodon* Owen), with a notice of specimens from the Eocene Green-sand of South Carolina.

Jour. Acad. Nat. Sci. Phila., (2), i, pp. 5-15, pls. i-v.

1848 A

[Letter from, to Dr. Morton regarding the genus *Dorudon*.]

Proc. Acad. Nat. Sci. Phila., iv, p. 57.

1848 B

Monograph of the fossil *Squalidæ*, of the United States.

Jour. Acad. Nat. Sci. Phila., 1848, pp. 139-147, pls. xviii-xxi.

1849 A

Monograph of the fossil *Squalidæ*, of the United States.

Jour. Acad. Nat. Sci. Phila., i, pp. 191-206, with pls. xxv-xxvii.

Gibbes, Robert W.—Cont'd. 1850 A
On *Mosasaurus* and other allied genera in the United States.

Proc. Amer. Assoc. Adv. Sci., 2d meeting, 1849, Cambridge, Mass., p. 77.

1850 B

New species of fossil *Myliobates*, from the Eocene of South Carolina, and new fossils from the Cretaceous, Eocene, and Pliocene of South Carolina, Alabama, and Mississippi.

Proc. Amer. Assoc. Adv. Sci., 2d meeting, Cambridge, Mass., 1849, pp. 198-194.

1850 C

Remarks on the fossil *Equus*.

Proc. Amer. Assoc. Adv. Sci., 3d meeting, Charleston, S. C., 1850, pp. 66-68.

From Ashley River, S. C.; supposed to be taken from Eocene deposits.

1850 D

Remarks on the northern *Elephas* of Prof. Agassiz.

Proc. Amer. Assoc. Adv. Sci., 3d meeting, Charleston, S. C., 1850, p. 69.

1850 E

Remarks on *Mastodon angustidens*.

Proc. Amer. Assoc. Adv. Sci., 3d meeting, Charleston, S. C., 1850, pp. 69-70.

1850 F

Fossils common to several formations.

Proc. Amer. Assoc. Adv. Sci., 3d meeting, Charleston, S. C., 1850, pp. 70-71.

1850 G

New species of *Myliobates*, from the Eocene of South Carolina, with other genera not heretofore observed in the United States.

Jour. Acad. Nat. Sci. Phila. (2), i, pp. 299-300.

1851 A

A memoir on *Mosasaurus* and three allied new genera, *Holcodus*, *Conosaurus*, and *Amphorosteus*.

Smithsonian Cont. to Knowledge, ii, art. v, pp. 1-13; pl. i-iii.

Gidley, J. W. 1900 A

A new species of Pleistocene horse from the staked plains of Texas.

Bull. Amer. Mus. Nat. Hist., xlii, pp. 111-116, with 5 figs. in the text.

Describes *Equus scotti*.

Giebel, C. G. 1847 A

Fauna der Vorwelt, mit steter Berücksichtigung der lebenden Thiere. Erster Band: Wirbelthiere. Erste Abtheilung: Säugethiere.

Pp. 1-xi; 1-283. Leipzig, 1847.

- Giebel, C. G.—Continued.** 1847 B
Fauna der Vorwelt, mit steter Berücksichtigung der lebenden Thiere. Erster Band: Wirbelthiere. Zweite Abtheilung: Vögel und Amphibia. Pp. 1-xi; 1-218. Leipzig, 1847.
- 1847 C
Koch's *Hydrarchos*.
Neues Jahrb. Mineralogie, 1847, pp. 717-721.
- 1847 D
[Letter to Professor Brown.]
Neues Jahrb. Mineralogie, 1847, pp. 819-825.
Contains some observations on *Zeuglodon cetoides*.
- 1848 A
Fauna der Vorwelt, mit steter Berücksichtigung der lebenden Thiere. Erster Band: Wirbelthiere. Dritte Abtheilung: Fische.
Pp. 1-xii; 1-467. Leipzig, 1848.
- 1852 A
Ueber die Gebissformel der Spitzmäuse.
Archiv Naturgesch., xviii, pp. 222-227.
- 1857 A
Zur Osteologie der Waschbären (*Procyon*).
Zeitschr. gesamt. Naturwiss., 1857, pp. 349-373.
- 1859 A
Zur Osteologie der Murmelthiere.
Zeitschrift gesamt. Naturwiss., xiii, pp. 299-309.
Describes osteology of *Arctomys monax*.
- 1866 A
Die Wirbelzahlen am Vogelskelet.
Zeitschr. gesamt. Naturwiss., xxviii, pp. 20-29.
A list showing the number of vertebrae occurring in each of 451 species of birds belonging to various orders and families.
- 1866 B
Osteologie der Klapperschlangen.
Zeitschr. gesamt. Naturwiss., xxviii, pp. 172-180.
The osteology of *Crotalus*.
- 1867 A
Schädel von *Dasypus gigas*.
Zeitschr. gesamt. Naturwiss., xxx, pp. 545-547.
- 1872 A
Schädel der *Felis concolor* F. *cyra*, und *F. yaguarundi*.
Zeitschr. gesamt. Naturwiss., xl, pp. 431-432.
- Giebel, C. G.—Continued.** 1877 A
Das Skelet des westafrikanischen *Crocodylus cataphractus*.
Zeitschr. gesamt. Naturwiss. (3), 1877, ii, pp. 106-113, with pls. 7-10.
- 1879 A
Marsh's neue Mittheilungen über die jurassischen Dinosaurier Nord-Amerikas.
Zeitschr. gesamt. Naturwiss. (3), iv, pp. 316-318.
A note on some of the genera of Dinosaurs described by Professor Marsh during the years 1878 and 1879.
- 1880 A
Charakteristik der Hasenschädel.
Zeitschr. gesamt. Naturwiss. (3), v, pp. 318-340, with pls. viii-x.
- Gilbert, G. K.** 1871 A
Remains of a mastodon.
Proc. Lyc. Nat. Hist. New York, 1871, pp. 220-221.
Describes geological position of mastodon found at St. Johns, Auglaize County, Ohio.
- Gilbert, J. Z.** 1898 A
On the skull of *Xerobates* (?) *undata* Cope.
Kansas Univ. Quarterly, vii, pp. 143-148, with 4 figs. in the text.
- Gill, Theodore.** 1861 A
Catalogue of the fishes of the eastern coast of North America.
Proc. Acad. Nat. Sci. Phila., 1861, pp. 1-63.
This paper has a pagination distinct from that of the remainder of the volume which contains it.
- 1862 A
Analytical synopsis of the order of *Squali*, and revision of the nomenclature of the genera.
Annals Lyc. Nat. Hist. of New York, vii, pp. 367-408.
- 1865 A
[Description of the genus *Elasmognathus*.]
Proc. Acad. Nat. Sci. Phila., 1865, p. 183.
- 1866 A
Prodrome of a monograph of the *Pinnipedes*.
Communications of the Essex Institute, v, pp. 3-13.
- 1871 A
On the relations of the orders of mammals.
Proc. Amer. Assoc. A'lv. Sci., 19th meeting, Troy, 1870, pp. 267-270.

Gill, Theodore—Continued. 1871 B
Synopsis of the primary subdivisions
of the cetaceans.
Communications of the Essex Institute, vi,
pp. 121-126.

— 1872 A
On the characteristics of the primary
groups of the class of mammals.
Proc. Amer. Assoc. Adv. Sci., 20th meeting,
Indianapolis, 1871, pp. 284-306.
See also Amer. Naturalist, v, pp. 526-533.

— 1872 B
Arrangement of the families of mam-
mals and synoptical tables of characters
of the subdivisions of mammals.
Smithsonian Miscel. Coll., No. 230, pp. 1-vi,
1-98.

— 1872 C
Arrangement of the families of fishes,
or classes *Pisces*, *Marsipobranchii*, and
Leptocardii.
Smithsonian Miscel. Coll., No. 247, 1872, pp.
1-xlvi; 1-49.

— 1873 A
On the affinities of the sirenians.
Proc. Acad. Nat. Sci. Phila., 1873, pp. 262-273.

— 1873 B
On the homologies of the shoulder-
girdle of the dipnoans and other fishes.
Ann. and Mag. Nat. Hist. (4), xi, pp. 173-178.
Extracted from "Arrangement of the fami-
lies of fishes."

— 1873 C
On the genetic relations of the ceta-
ceans and the methods involved in dis-
covery.
Amer. Naturalist, vii, pp. 19-29.
A statement of the author's views regarding
the higher groups and their relations. A re-
ply to Dr. Brandt, of St. Petersburg.

— 1873 D
On the limits of the class of fishes.
Amer. Naturalist, vii, pp. 71-79.

— 1875 A
Synopsis of Insectivorous mammals.
Bull. U. S. Geol. and Geog. Surv. Terr., i,
(2), Bull. No. 2, pp. 91-120.

— 1883 A
Nomenclature of the Xiphiids.
Proc. U. S. Nat. Mus., v, pp. 485-486.

— 1883 B
On the classification of the Insectivor-
ous mammals.
Bull. Philos. Soc. Washington, v, pp. 118-
120.

— 1883 C
Note on the affinities of the Ephip-
piids.
Proc. U. S. Nat. Mus., v, pp. 557-560.

Gill, Theodore—Continued. 1884 A
The relations of *Didymodus*, or *Di-
plodus*.
Science, iii, pp. 429-430.

— 1884 B
The oldest living type of vertebrate,
Chlamydoscelachus.
Science, iii, p. 346.
Contains a classification of the sharks.

— 1884 C
The oldest living type of vertebrates.
Science, iv, p. 524.

— 1884 D
Synopsis of the plectognath fishes.
Proc. U. S. Nat. Mus., vii, pp. 411-427.

— 1888 A
Eutheria and *Prototheria*.
Amer. Naturalist, xxii, pp. 258-259.
Shows that the sense in which Dr. Gill
originally used the above terms is not the
same as that in which they were used by Pro-
fessor Huxley.

— 1889 A
On the classification of the mail-
cheeked fishes.
Proc. U. S. Nat. Mus., xi, pp. 567-592.
This paper deals with the anatomy and
classification of the mail-cheeked fishes, and
contains explanations of various anatomical
terms; also references to the literature bearing
on the group.

— 1891 A
On the relations of *Cyclopteroidea*.
Proc. U. S. Nat. Mus., xiii, pp. 361-376, with
pls. xxviii-xxx.

— 1893 A
Families and subfamilies of fishes.
Mem. Nat. Acad. Sci., vi, pp. 125-138.

— 1894 A
The nomenclature of the *Myliobatidæ*,
or *Alopiatidæ*.
Proc. U. S. Nat. Mus., xvii, pp. 111-114.

— 1894 B
The nomenclature of the family
Poecilidæ, or *Cyprinodontidæ*.
Proc. U. S. Nat. Mus., xvii, pp. 115-116.

— 1894 C
The differential characters of the
Salmonidæ and *Thymallidæ*.
Proc. U. S. Nat. Mus., xvii, pp. 117-122.

— 1895 A
Notes on the nomenclature of *Scym-
nus*, or *Scymnorhinus*, a genus of sharks.
Proc. U. S. Nat. Mus., xviii, pp. 191-193.
Scymnus preoccupied in entomology and to
be replaced by *Scymnorhinus*.

- Gill, Theodore**—Continued. 1896 A
Notes on the synonymy of the *Torpedinidæ*, or *Narcobatidæ*.
Proc. U. S. Nat. Mus., xviii, pp. 161-165.
- 1896 B
Note on the nomenclature of the Percilioid fishes.
Proc. U. S. Nat. Mus., xviii, pp. 221-224.
- 1896 C
Fishes, living and fossil.
Science (2), iii, pp. 909-917.
A review of Dr. Bashford Dean's book, "Fishes, living and fossil."
- 1900 A
The earliest use of the names *Sauria* and *Batrachia*.
Science (2), xii, p. 730.
- Gill, T., and Coues, E.** 1877 A
Material for a bibliography of North American mammals.
Report U. S. Geol. Surv. Terr., F. V. Hayden, xi, appendix B, pp. 961-1061.
This bibliography contains about 3,000 titles of works on the mammals of North America.
- Gilpin, Bernard.** 1873 A
Observations on some fossil bones found in New Brunswick, Dominion of Canada.
Nova Scotia Inst. of Nat. Sci., iii, pp. 400-404.
Records finding of cetacean bones, supposed to belong to *Beluga vermontana*.
- Goddard, —.** 1841 A
Examination of so-called *Missourium kochii*.
Proc. Acad. Nat. Sci. Phila., i, pp. 115-116.
- Godman, J. D.** 1825 A
Description of the os hyoides of the mastodon.
Jour. Acad. Nat. Sci. Phila., iv, pp. 67-72, with pl. ii.
- 1828 A
American natural history.
Vols. i-iii, Philadelphia. 8vo.
Vol. i was published 1825; ii, 1826; iii, 1828.
This work contains descriptions and figures of some of the earlier known American fossil vertebrates.
- 1830 A
Description of a new genus and new species of extinct mammiferous quadruped.
Trans. Amer. Philos. Soc. (2), iii, pp. 478-485, pls. xvii, xviii.
Description and figures of *Tetracaulodon mastodontoides*, Godm.
- Göldi, Emil A.** 1883 A
Kopfskelet und Schultergürtel von *Loricaria cataphracta*, *Balistes capricus*, und *Accipenser ruthenus*.
Zoolog. Anzeiger, vi, pp. 420-422.
- 1884 A
Kopfskelet und Schultergürtel von *Loricaria cataphracta*, *Balistes capricus*, und *Accipenser ruthenus*.
Jenaische Zeitschr., xvii (x), pp. 401-451, with pls. iv-vi.
- Goeppert, Ernst.** 1895 A
Untersuchungen zur Morphologie der Fischrippen.
Morphologisches Jahrbuch, xxiii, pp. 145-217, with pls. xiii-xvi and 21 figs. in text.
Contains a list of papers on the subject.
- 1895 B
Zur Kenntniss der Amphibienripen.
Morpholog. Jahrbuch, xxii, pp. 441-448, with 5 figs. in text.
- 1896 A
Die Morphologie der Amphibienripen.
Festschrift zum 70sten Geburtstage von Carl Gegenbaur, i, pp. 395-436, with pls. i, ii, and 10 figs. in the text.
Appended is a list of the works of other writers on the subject.
- Goethe, Johann Wolfgang.** 1831 A
Ueber den Zwischenkiefer des Menschen und der Thiere.
Nov. Act. Acad. Caes. Leop.-Carol., xv, pp. 3-48, with pls. i-v.
- Goette, Alex.** 1878 A
Beiträge zur vergleichenden Morphologie des Skeletsystems der Wirbelthiere. II Die Wirbelsäule und ihre Anhänge.
Archiv Mikroskop. Anatomie, xv, pp. 442-541; pls. xxviii-xxxiii.
Treats of the structure and homologies of the elements of the vertebral column and homology of ribs, etc., of Ganoids and Elasmobranchs.
- 1899 A
Ueber die Entwicklung des knöchernen Rückenschildes (Carapax) der Schildkröten.
Zeitschr. wissenschaft. Zoologie, lxvi, pp. 407-434, with pls. xxvii-xxix.
- Goldfuss, August.** 1845 A
Der Schädelbau des *Mosaurus*, durch Beschreibung einer neuen Art dieser Gattung erläutert.
Nov. Act. Acad. Caes. Leop.-Carol. Nat. Curiosorum, xxi, pp. 173-200, with pl. vi-ix.
Abstract appeared in Neues Jahrb. Min., 1847, pp. 122-125.

Goldfuss, August—Continued. 1847 A
Beiträge zur vorweltlichen Fauna des Steinkohlengebirges.

Herausgegeben von dem naturhistorischen Vereine für die preussischen Rheinlande, Bonn, 1847, pp. 1-28, with pls. 1-v.

1849 A
Description of the *Orthacanthus dechenii*.

Quart. Jour. Geol. Soc., v, pp. 21-23, of translations and notices.

From "Beiträge zur vorweltlichen Fauna des Steinkohlengebirges."

Goode, G. Brown. 1882 A
The taxonomic relations and geographical distribution of the members of the swordfish family.
Proc. U. S. Nat. Mus., iv, pp. 415-433.

Goodrich, E. S. 1894 A
On the fossil *Mammalia* from the Stonesfield slate.
Quart. Jour. Mic. Sci., xxxv, pp. 407-432, with pl. xxvi.
Pp. 425-429 contain a discussion of the primitive mammalian molar.

Gorski, Constantin. 1858 A
Einige Bemerkungen über die Beckenknochen der beschuppten Amphibien.
Archiv f. Anat., Physiol. u. wissenschaft. Medicin., Jahrg. 1858, pp. 382-389.

Grabbe, A. 1884 A
Beitrag zur Kenntniss der Schildkröten des deutschen Wealden.
Zeitschr. deutsch. geol. Gesellsch., xxxvi, pp. 17-23, with pl. 1.
Discusses structure and relations of *Pleurosternon*.

Grant, E. 1842 A
On the structure and history of the mastodontoid animals of North America.
Proc. Geol. Soc. Lond. iii, pp. 770-771.

Grassi, B. 1883 A
Beiträge zur näheren Kenntniss der Entwicklung der Wirbelsäule der Teleostier.
Morpholog. Jahrbuch, viii, pp. 457-473.

Gratacap, L. P. 1886 A
Fish remains and tracks in the Triassic rocks at Weehawken, N. J.
Amer. Naturalist, xx, pp. 243-246, with pls. xli and xlii, and 2 woodcuts in the text.

1896 A
Fossils and fossilization.
Amer. Naturalist, xxx, pp. 902-912, 993-1003.

Grateloup, J. P. S. 1840 A
Beschreibung eines fossilen Stückes Kinnlade eines riesigen Saurier-Geschlechtes *Squalodon*, mit *Iguanodon* verwandt, aus dem Meeres-Sande von Léognan bei Bordeaux, pp. 8, 1 pl.
Neues Jahrbuch f. Min., 1841, pp. 830-832.

Abstract from Actes Acad. Roy. Sci. Bordeaux, 1840, p. 208. For original, see same volume Jahrbuch, pp. 567-568, a note from Grateloup, in which he recognizes the Delphinoid nature of this fossil. I have seen only the abstract here referred to.

Gratiolet, Pierre. 1858 A
Note sur un fragment de crâne trouvé à Montrouge, près Paris.
Bull. Soc. Géol. de France (2), pp. 620-625, with pl. v.
Describes *Odobenotherium lartetianum*.

Gray, Asa. 1846 A
Food of the mastodon.
Proc. Bost. Soc. Nat. Hist., ii, pp. 92-93.
Reprinted in Amer. Jour. Sci. (2), iii, p. 436.

Gray, J. E. 1837 A
General arrangement of the *Reptilia*.
Proc. Zool. Soc. Lond., 1837, v, pp. 131-132.

1857 A
Observations on the species of the genus *Manatus*.
Proc. Zool. Soc. Lond., 1857, xxv, pp. 50-61.

1865 A
Revision of the genera and species of *Mustelidae* contained in the British Museum.
Proc. Zool. Soc. Lond., 1865, pp. 100-154, with pl. vii, and 3 text figs.

1866 A
Catalogue of seals and whales in the British Museum.
Second edition, pp. 402, with 101 woodcuts in text.

1867 A
Notice of a new species of American tapir, with observations on the skulls of *Tapirus*, *Rhinoceros*, and *Elasmognathus* in the collections of the British Museum.
Proc. Zool. Soc. Lond., 1867, pp. 876-886, with pl. xlii, and 6 text figs.

1867 B
Observations on the preserved specimens and skeletons of the *Rhinocerotidae* in the collection of the British Museum and Royal College of Surgeons, including the descriptions of 3 new species.
Proc. Zool. Soc. Lond., 1865, pp. 1003-1032, with 6 text figs.

- Gray, J. E.**—Continued. 1868 A
Synopsis of the pigs (*Suidæ*) in the British Museum.
Proc. Zool. Soc. Lond., 1868, pp. 17-49.
-
- 1868 B
Notes on the skulls of the species of dogs, wolves, and foxes (*Cunidæ*) in the collection of the British Museum.
Proc. Zool. Soc. Lond., 1868, pp. 492-525, with 7 woodcuts in the text.
-
- 1869 A
Catalogue of carnivorous, pachydermatous, and edentate *Mammalia* in the British Museum.
Pp. 396, with 47 woodcuts. London, 1869.
-
- 1869 B
Notes on the families and genera of of tortoises (*Testudinata*), and on the characters afforded by the study of their skulls.
Proc. Zool. Soc. Lond., 1869, pp. 165-225, with pl. xv, and 20 figs. in the text.
-
- 1869 C
On the bony dorsal shield of the male *Tragulus kanchil*.
Proc. Zool. Soc. Lond., 1869, p. 226, with 1 fig.
-
- 1872 A
Description of the younger skull of Steller's sea bear (*Eumetopias stelleri*).
Proc. Zool. Soc. Lond., 1872, pp. 737-743, with 5 figs.
-
- 1873 A
Notes on the mud tortoises (*Trionyx*, Geoffroy) and on the skulls of the different kinds.
Proc. Zool. Soc. Lond., 1873, pp. 38-72, with pl. viii and 13 text figs.
This paper presents a classification of the *Trionychia*, together with definitions of the genera adopted.
-
- 1873 B
Notes on the genera of turtles (*Oia-copodes*), and especially on their skeletons and skulls.
Proc. Zool. Soc. Lond., 1873, pp. 395-411, with 3 figs. in the text.
In this paper is presented a classification of the *Chelonidæ* and the *Dermochelyidæ*, together with definitions of the genera.
-
- 1873 C
On the skulls and alveolar surfaces of land tortoises (*Testudinata*).
Proc. Zool. Soc. Lond., 1873, pp. 722-728, with pl. ix.
-
- Green, Jacob.** 1821 A
Some curious facts respecting the bones of the rattlesnake.
Amer. Jour. Sci. (1), iii, pp. 85-86.
-
- Greene, Francis V.** 1853 A
Chemical investigation of remains of fossil *Mammalia*.
Amer. Jour. Sci. (2), xvi, pp. 16-20.
See also Proc. Acad. Nat. Sci. Phila., vi, pp. 292-296.
-
- Grinnell, G. B.** 1881 A
Monograph by Professor Marsh on the *Odontornithes*, or toothed birds of North America.
Amer. Jour. Sci. (3), xxi, pp. 256-276, with 9 figs. in the text.
-
- Grinnell, G. B., and Dana, E. S.** 1876 A
On a new Tertiary lake basin.
Amer. Jour. Sci. (3), xi, pp. 126-128.
-
- Gruber, W.** 1859 A
Monographie des canalis supracondyloidei humeri und des processus supracondyloidei humeri et femoris der Säugethiere und des Menschen.
Mém. l'Acad. Imp. Sci. St. Pétersbourg, viii, pp. 53-128, with pls. i-iii.
-
- Günther, Albert C.** 1859 A
Catalogue of the Acanthopterygian fishes in the collection of the British Museum.
Vol. i, pp. 1-xxxii; 1-524, containing families *Gasterosteidae*, *Berycidae*, *Percidae*, *Aphredoderidae*. London, 1859.
-
- 1860 A
Catalogue of the Acanthopterygian fishes in the collection of the British Museum.
Vol. ii, pp. 1-xxi, 1-548.
This volume contains the *Squamipinnæ*, *Triglidae*, *Scienidae*, *Sphyrenidae*, *Scombridae*, *Carangidae*, *Xiphiidae*, etc.
-
- 1861 A
Catalogue of the Acanthopterygian fishes in the collection of the British Museum.
Vol. iii, pp. 1-xxv, 1-586.
-
- 1862 A
Catalogue of the fishes in the British Museum. Vol. iv, containing *Pomacentridæ*, *Labridæ*, etc.
Pp. 1-xxii; 1-534.
-
- 1864 A
Catalogue of the fishes of the British Museum. Vol. v, containing the families *Siluridae*, *Characiniidae*, etc.
Pp. 1-xxii, 1-455, London, 1864.

Günther, Albert C.—Continued. 1866 A
Catalogue of the fishes of the British Museum. Vol. vi, containing the families *Salmonidae*, *Percopidae*, *Gadidae*, *Mormyridae*, *Gymnarchidae*, *Esocidae*, *Umbidae*, *Scombroideae* *Cyprinodontidae*.
Pp. i-xv, 1-368, London, 1866.

1867 A
Contribution to the anatomy of *Hatteria* (*Rhynchocephalus* Owen).
Philos. Trans. Roy. Soc., London, clvii, pp. 596-629, with pls. xxvi-xxviii.

1868 A
Catalogue of the fishes of the British Museum.
Vol. vii, pp. i-xx, 1-512.
Contains families of the *Physostomi*.

1870 A
Catalogue of the fishes of the British Museum.
Vol. viii, pp. i-xxv, 1-649.
This volume contains the families *Gymnotidae*, *Symbranchidae*, *Muraenidae*, *Pegasiidae*; also the *Lophobranchii*, *Plectognathi*, *Dipnoi*, *Ganoidi*, *Chondropterygii*, *Cyclostomata*, and the *Leptocephali*.

1871 A
The new ganoid fish (*Ceratodus*) recently discovered in Queensland.
Nature, iv, pp. 406-408, 428-429.

1871 B
Ceratodus and its place in the system.
Ann. and Mag. Nat. Hist. (4), vii, pp. 222-227.

1872 A
Description of *Ceratodus*, a genus of Ganoid fishes recently discovered in rivers of Queensland, Australia.
Philosoph. Trans. Royal. Soc. Lond., clxi, pp. 511-571; pls. xxx-xlii.

1877 A
The gigantic land tortoises (living and extinct) in the collection of the British Museum.
Pp. 96; pls. 54. London, 1877.

1880 A
An introduction to the study of fishes.
Edinburgh, 1880, 8vo, pp. i-xvi; 1-720, with 321 figs. in the text.

1881 A
Ichthyology.
Encyclop. Brit., 9th ed., xii, pp. 630-695, with 70 figs. in the text.

Günther, Albert C.—Continued. 1886 A
Reptiles.
Encyclop. Brit., 9th ed., xx, pp. 432-445, 465-473.

Dr. Günther's portion of the article on *Reptilia* treats of the history and literature of the subject, the various systems of classification, the general characters of the class, and the geological and geographical distribution. There are also lists of the most important works on the subject.

1888 A
Tortoise.
Encyclop. Brit., 9th ed., xxiii, pp. 455-460, with 9 figs. in the text.
A popular account of tortoises and a scheme of classification.

Gürich, Georg. 1891 A
Ueber Placodermen und andere devonische Fischreste im Breslauer mineralogischen Museum.
Zeitschr. deutsch. geol. Gesellsch., xliiii, pp. 902-911, with 5 figs. in the text.

1891 B
Ueber einen neuen *Nothosaurus* von Gogolin in Oberschlesien.
Zeitschr. deutsch. geol. Gesellsch., xliiii, pp. 967-970, with 2 figs. in the text.

Haacke, Wilhelm. 1888 A
Ueber die Entstehung des Säugetieres.
Biolog. Centralbl., viii, pp. 8-16.

1893 A
Ueber die Entstehung des Säugetieres.
Biolog. Centralbl., xiii, pp. 719-732.

Haberlandt, G. 1876 A
Ueber *Testudo præceps* n. sp., die erste fossile Landschildkröte des Wiener Beckens.
Jahrbuch k.-k. geol. Reichsanstalt, xxvi, pp. 243-248, with pl. xvi.
Makes comparisons with Dr. Leidy's *T. carbonii*.

Habersham, Joseph.
See note under **Hodson, W. B.** 1846 A.

Haddon, A. C.
See **Bridge and Haddon.**

Haeckel, Ernst. 1895 A
Systematische Phylogenie der Wirbelthiere (*Vertebrata*). Dritter Theil des Entwurfs einer systematischen Phylogenie.
8vo; Berlin, 1895; pp. i-x; 1-660.

- Hale, C. S.** 1848 A
Geology of south Alabama.
Amer. Jour. Sci. (2), vi., pp. 354-363.
- Hall, J.** 1843 A
Geology of New York. Part iv,
comprising the survey of the 4th geo-
logical district.
Pp. 1-xxv; 1-687, with tables containing 74
figs. of organic remains and 19 pls. 4to.
Albany, 1843.
- 1846 A
On the geological relations of *Custo-
roides ohioensis*.
Proc. Bost. Soc. Nat. Hist., ii, pp. 167-168.
Describes skull found near Clyde, N. Y.
- 1846 B
Notice of the geological position of
the cranium of the *Custoroides ohioensis*.
Jour. Boston Soc. Nat. Hist., v, pp. 385-391.
This paper constitutes a portion of a joint
article, by James Hall and Jeffries Wyman, on
the skull of *Custoroides*. See Wyman, J.,
1846 B.
- 1871 A
Notes and observations on the Cohoes
mastodon.
Twenty-first Ann. Report Regents Univ.
N. Y., on condition of State Cabinet, pp. 99-
148, with pls. iii-vii.
- 1887 A
Note on the discovery of a skeleton
of an elk, *Elaphus canadensis*, in the
town of Farmington, Ontario County.
Sixth Ann. Report State Geologist, New
York, for 1886, p. 39.
- Hallman, E.** 1837 A
Die vergleichende Osteologie des
Schläfensbeins; zur Vereinfachung der
herrschenden Ansichten bearbeitet.
Hannover, 1837. Pp. 1-130; pls. i-iv.
- Hallowell, Edward.** 1846 A
Remarks on some bones of a young
mastodon.
Proc. Acad. Nat. Sci. Phila., iii, p. 130. See
also p. 117.
- Hambach, G.** 1890 A
A preliminary catalogue of the fos-
sils occurring in Missouri.
Geol. Surv. Missouri, Bull. No. 1, pp. 60-85.
This contains, on pp. 80 and 81, an alpha-
betical list of the species of the fossil fishes
found in Missouri, so tabulated as to show
their stratigraphical distribution. On p. 82
are recorded four mammals which have been
found fossil in the State. Since the list of Mis-
souri fossils prepared by Chas. R. Keyes was
published at a later date (1894), but few refer-
ences are given in the present catalogue to
Hambach's list. However, this list contains

- Hambach, G.**—Continued.
a number of species not before reported from
Missouri. These are recorded in the present
Catalogue.
- Hammerschmidt, Carl E.** 1848 A
Resultate geologischer, anatomischer,
und zoologischer Untersuchungen über
Hydrarchos Koch.
Haidinger's Berichte über die Mittheilungen
von Freunden der Naturwissenschaften in
Wien, iii, pp. 322-326.
- Hancock, Albany, and Atthey, Thos.**
1868 A
Notes on the remains of some rep-
tiles and fishes from the shales of the
Northumberland coal field.
Ann. and Mag. Nat. Hist. (4), i, pp. 266-278,
346-378, with pls. xiv-xvi.
Also in Nat. Hist. Trans. Northumberland
and Durham, iii, 1868, pp. 66-120, with pls. i-iii.
- 1868 B
Notes on the various species of *Cleno-
dus* obtained from the shales of the
Northumberland coal field.
Nat. Hist. Trans. Northumberland and Dur-
ham, iii, pp. 54-66.
- 1869 A
On a new Labyrinthodont amphibian
from the Northumberland coal field,
and on the occurrence in the same
locality of *Anthracosaurus russelli*.
Nat. Hist. Trans. Northumberland and Dur-
ham, iii, pp. 310-319.
- 1869 B
On the generic identity of *Climaxodus*
and *Janassa*.
Ann. and Mag. Nat. Hist. (4), iv, pp. 322-328,
pl. xii.
Also in Nat. Hist. Trans. Northumberland
and Durham, iii, 1869, pp. 330-338.
- 1870 A
Note on an undescribed fossil fish
from the Newsham Coal shale, near
Newcastle-upon-Tyne.
Ann. and Mag. Nat. Hist. (4), v, pp. 266-268.
Describes as new genus *Archichthys*, now re-
garded as synonym of *Strepsodus*. The genus
Archichthys founded on portion of a jaw with
teeth.
- 1871 A
A few remarks on *Dipterus* and
Clenodus, and on their relationship to
Ceratodus forsteri Krefft.
Ann. and Mag. Nat. Hist. (4), vii, pp. 190-
198, pls. xlii, xiv.
Also in Nat. Hist. Trans. Northumberland
and Durham, iv, 1872, pp. 397-407, with pls.
xlii, xiv.

Hancock, Albany, and Atthey, Thos.—
Continued. 1872 A

Descriptive note on a nearly entire specimen of *Pleurodus rankinii*, on two new species of *Platysomus*, a new *Amphicentrum*, with remarks on a few other fish remains in the Coal-measures at Newham.

Ann. and Mag. Nat. Hist. (4), ix, pp. 249-262, with pls. xvii, xviii.

Also in Nat. Hist. Trans. Northumberland and Durham, 1872, iv, pp. 406-423, with pla. xv, xvi.

Hancock, Albany, and Howse, Richard.
1870 A

On *Janassa bituminosa* Schlotheim, from the marl slate of Midderidge, Durham.

Ann. and Mag. Nat. Hist. (4), v, pp. 47-62; pls. ii, iii.

Also in Nat. Hist. Trans. Northumberland and Durham, iii, 1869, pp. 339-357, with pla. x, xi.

1872 A

On *Dorypterus hoffmanni* Gernar, from the marl slates of Midderidge, Durham.

Nat. Hist. Trans. Northumberland and Durham, iv, pp. 248-268, with pls. ix, x.

Hannover, A. 1868 A

Recherches sur la structure et le développement des écailles et des épines chez les poissons cartilagineux.

Annales Sci. Naturelles, Zool. (5), ix, pp. 373-378.

Harlan, R. 1823 A

Observations on fossil elephant teeth, of North America.

Jour. Acad. Nat. Sci. Phila., iii, pp. 65-67, pl. v.

1824 A

On a new fossil genus of the order *Enalio Sauri* (of Conybeare).

Jour. Acad. Nat. Sci. Phila., iii, pp. 331-337, with pl. xii, figs. 1-5.

In this paper is described the new genus *Saurocephalus*, based on the new species *S. lanciformis*.

1824 B

On an extinct species of crocodile not before described; and some observations on the geology of west Jersey.

Jour. Acad. Nat. Sci. Phila., iv, pp. 15-24, with pl. i.

Describes remains afterwards called *Crocodylus macrorhynchus*.

Harlan, R.—Continued. 1825 A

Fauna Americana; being a description of the mammiferous animals inhabiting North America.

8vo., pp. 1-x, 1-318, Philadelphia: Published by Anthony Finley.

1825 B

Notice of the plesiosaurus and other fossil reliquæ from the State of New Jersey.

Jour. Acad. Nat. Sci. Phila., iv, pp. 231-236.

The "plesiosaurus" is *Priscodactylus harlandi* Ledy.

1828 A

Note from R. Harlan, M. D., on the examination of the large bones disinterred at the mouth of the Mississippi River and exhibited in the city of Baltimore, Jan. 22, 1828.

Amer. Jour. Sci., xiv, pp. 186-187.

1831 A

Description of the fossil bones of the *Megalonyx* discovered in "White Cave," Kentucky.

Jour. Acad. Nat. Sci. Phila., vi, pp. 269-283, pls. xii-xiv.

Describes *Megalonyx laqueatus*.

See for notice of this paper Neues Jahrbuch Min., 1836, p. 123. Also Amer. Jour. Sci., 1831, xx, pp. 414-415.

1831 B

Description of the jaws, teeth, and clavicle of the *Megalonyx laqueatus*.

Monthly Amer. Jour. Geology and Nat. Sci., i, pp. 74-76, with pl. iii.

1834 A

On some new species of fossil saurians found in America.

Report Brit. Assoc. Adv. Sci., 3d meeting, Cambridge, 1833, p. 440.

A brief abstract, naming only *Ichthyosaurus missouriensis*.

1834 B

Critical notices of various organic remains hitherto discovered in North America.

Trans. Geol. Soc. of Pennsylvania, i, pt. i, pp. 46-112, Philadelphia, 1834.

See also Harlan, 1835 B; Edinburgh New Philos. Jour., xvii, pp. 342-362, xvii, pp. 28-40; Neues Jahrb. Min., 1836, pp. 99-109.

1834 C

Notice of fossil bones found in the Tertiary formation of the State of Louisiana.

Trans. Amer. Philos. Soc., iv, pp. 397-403, pl. xx, figs. 1, 2.

The bones are assigned to the genus *Basilosaurus*.

Harlan, R.—Continued. 1834 D
Notice of the discovery of the remains
of the *Ichthyosaurus* in Missouri, N. A.
Trans. Amer. Philos. Soc., iv, pp. 406-409, pl.
xxx, figs. 2-8.

Describes *Ichthyosaurus missouriensis*, but
a note follows which states that the fossil must
be assigned to some new genus. This is not
named.

1834 E
Announcement of the finding of *Ich-*
thyosaurus missouriensis and *Basilo-*
saurus.

Bull. Soc. Géol. de France (1), iv, p. 124.
No descriptions are furnished.

1835 A
Observations on a large skeleton re-
cently disinterred from the mouth of
the Mississippi River.

Med. and Phys. Researches, pp. 76-77.

1835 B
Critical notices of various organic re-
mains hitherto discovered in North
America.

Med. and Phys. Researches, pp. 253-313.
See also Harlan, 1834 B.

1835 C
Description of the fossil bones of the
Megalonyx, recently discovered in the
United States, N. A.

Med. and Phys. Researches, pp. 319-336, with
pls. xii-xvi.

1835 D
Observations on the fossil bones
found in the Tertiary formation in the
State of Louisiana.

Med. and Phys. Researches, pp. 337-343.
Treats of *Basilosaurus*.

1835 E
Description of the Ichthyosaurian
remains recently discovered in the
State of Missouri.

Med. and Phys. Researches, pp. 344-348,
with 1 pl. of 6 figs.

Treats of *Ichthyosaurus missouriensis*.

1835 F
Description of the remains of the
Basilosaurus, a large fossil marine ani-
mal recently discovered in the horizon-
tal limestone of Alabama.

Med. and Phys. Researches, pp. 349-356, with
pls. xxvi-xxviii.

1835 G
Observations on the fossil elephant
teeth of North America.

Med. and Phys. Researches, pp. 359-361, with
1 pl.

The teeth figured are probably those of *E.*
primigenius.

Harlan, R.—Continued. 1835 H
Description of a new fossil genus of
the order *Enalio Sauri* (of Conybeare).
Med. and Phys. Researches, pp. 362-366, with
1 pl.

1835 I
Description of an extinct species of
crocodile not before described, and
some observations on the geology of
west Jersey.

Med. and Phys. Researches, pp. 369-381, with
1 pl. of *Crocodylus macrorhynchus*.

1835 J
Notice of plesiosaurian and other fos-
sil reliquæ from the State of New Jer-
sey.

Med. and Phys. Researches, pp. 382-385, with
1 pl.

1839 A
Notice of the discovery of the *Basilo-*
saurus and the *Batrachiosaurus*.

Proc. Geol. Soc. Lond., iii, pp. 23-24.
Also in Lond. and Edinb. Philos. Mag., xiv,
p. 302.

No adequate descriptions are given of the
genera proposed.

1839 B
[Letter regarding *Basilosaurus* and
Batrachotherium.]

Bull. Soc. Géol. France, x, pp. 89-90.

See also Neues Jahrb. Min., 1840, p. 741, for
abstract.

1839 C
On the discovery of the *Basilosaurus*
and the *Batrachiosaurus*.

Lond. and Edinb. Philos. Mag. and Jour.
Sci., xiv, p. 302.

See also Ann. Sci. Naturelles (2), xii, p. 221.

1840 A
A letter from Dr. Harlan addressed
to the president [of the Geol. Soc.,
London] on the discovery of the re-
mains of the *Basilosaurus*, or *Zeuglodon*.
Trans. Geol. Soc. Lond. (2), vi, pp. 67-68.

1842 A
Bones of the *Orycterotherium*.
Amer. Jour. Sci., xlii, p. 892.

1842 B
Notice of two new fossil mammals
from Brunswick canal, Georgia; with
observations on some of the fossil
quadrupeds of the United States.
Amer. Jour. Sci., xliii, pp. 141-144; pl. iii.

- Harlan, R.**—Continued. 1842 C
Description of the bones of a fossil animal of the order *Edentata*.
Proc. Amer. Philos. Soc., II, pp. 109-111.
Describes the new genus and species *Orycterotherium missouriense*.
A notice of this paper was published in Ann. and Mag. Nat. Hist., 1842, x, p. 72.
- 1842 D
Description of a new extinct species of dolphin from Maryland.
Second Bull. of Proc. Nat. Institute, pp. 196-196, with 3 large pls.
Describes *Delphinus calvertensis* Harl.
- 1842 E
[A list of fossil bones from Brunswick canal, presented by J. Hamilton Cooper, Darien, Ga.]
Proc. Acad. Nat. Sci. Phila., 1842, pp. 189-190.
- 1843 A
Remarks on Mr. Owen's letter to the editors on Dr. Harlan's new fossil *Mamalia*.
Amer. Jour. Sci., xlv, pp. 208-211.
- 1843 B
Description of the bones of a new fossil animal of the order *Edentata*.
Amer. Jour. Sci. (1), xlv, pp. 69-80, with pla. i-iii.
Description with figures of *Orycterotherium missouriense*.
- Harpe, Ph. de la.** See **Pictet, Gaudin** and **Harpe**.
- Harrison, J.** See **Howes** and **Harrison**.
- Harrison, R. G.** 1894 A
Ectodermal or mesodermal origin of the bones of Teleosts?
Anatom. Anzeiger, x, pp. 139-143, with 3 figs.
The author denies Klaatsch's view that the bones are of ectodermal origin.
- Hartlaub, Clemens.** 1886 A
Berträge zur Kenntniss der Manatus-Arten.
Zoolog. Jahrbücher, i, pp. 1-112, with pls. i-iv and 13 figs. in the text.
An important work. In the beginning there is found a list of papers and memoirs on the subject.
- Hartmann, R.** 1893 A
Ueber die Feliden-Gattung *Machærodus*.
Sitz.-Ber. Gesellsch. naturforsch. Freunde Berlin, 1893, pp. 88-94.
- Hartt, Ch. Fred.** 1871 A
Discovery of mastodon remains at Motts Corners, near Ithaca, N. Y.
Amer. Naturalist, v, pp. 314-315.
- Hasse, C.** 1876 A
Die fossilen Wirbel.
Morpholog. Jahrbuch, II, pp. 449-477, with pls. xxx-xxxI.
- 1877 A
Die fossilen Wirbel. Die fossilen *Squatinæ*.
Morpholog. Jahrbuch, III, pp. 328-351, with pls. xvii-xviii.
- 1878 A
Das natürliche System der Elasmobranchier auf Grundlage des Baues und der Entwicklung der Wirbelsäule.
Zoolog. Anzeiger, i, pp. 144-148; 167-172.
- 1879 A
Das natürliche System der Elasmobranchier auf Grundlage des Baues und der Entwicklung ihrer Wirbelsäule. Eine morphologische und paläontologische Studie. Allgemeiner Theil.
Pp. i-vi; 1-76, with 2 pls. and 6 wood cuts. Jena, 1879.
See for continuation of this work **Hasse, C.**, 1882 A.
- 1879 B
Ueber den Bau und über die Entwicklung des Knorpels bei den Elasmobranchiern.
Zoolog. Anzeiger, II, pp. 325, 351-356, 371-374.
- 1882 A
Das natürliche System der Elasmobranchier auf Grundlage des Baues und der Entwicklung ihrer Wirbelsäule. Eine morphologische und paläontologische Studie. Besonderer Theil.
Pp. 1-285, with 40 pls. Jena., 1882.
For beginning of this work see **Hasse, C.** 1879 A. For conclusion, **Hasse, C.**, 1885 A.
- 1885 A
Das natürliche System der Elasmobranchier auf Grundlage des Baues und der Entwicklung ihrer Wirbelsäule. Eine morphologische und paläontologische Studie. Ergänzungsheft.
Pp. 1-27, with 1 pl. Jena, 1885.
For earlier parts of this work see **Hasse, C.**, 1879 A, and **Hasse, C.**, 1882 A.
- 1893 A
Allgemeine Bemerkungen über die Entwicklung und die Stammesgeschichte der Wirbelsäule.
Anatom. Anzeiger, viii, pp. 288-289.
- Haswell, William A.** 1883 A
On the structure, of the paired fins of *Ceratodus*, with remarks on the general theory of the vertebrate limb.
Proc. Linnean Soc. N. S. Wales (1), vii, pp. 2-11, with pl. I.

- Haswell, William A.**—Cont'd. 1884 A
Studies on the Elasmobranch skeleton.
Proc. Linnean Soc. N. S. Wales (1), ix, pp. 71-119, with pls. i and ii.
- Hatcher, J. B.** 1893 A
The Ceratops beds of Converse County, Wyo.
Amer. Jour. Sci. (3), xlv, pp. 135-144.
- 1893 B
The Titanotherium beds.
Amer. Naturalist, xxvii, pp. 204-221, with 3 figs. in the text.
- 1894 A
A median-horned rhinoceros from the Loup Fork beds of Nebraska.
Amer. Geologist, xlii, pp. 149-150.
- 1894 B
Discovery of *Diceratherium*, the two-horned rhinoceros, in the White River beds of South Dakota.
Amer. Geologist, xlii, pp. 360-361.
- 1894 C
On a small collection of vertebrate fossils from the Loup Fork beds of northwestern Nebraska; with note on the geology of the region.
Amer. Naturalist, xxviii, pp. 236-248, pls. i, ii.
Describes as new *Aeturodon tazoides* and *A. meandrinus*. Treats also of *Aphelops fossiger* and *Telicercus major*.
Abstract in Princeton Coll. Bull., vi, p. 64, 1894.
- 1895 A
On a new species of *Diplacodon*, with a discussion of the relations of that genus to *Telmatotherium*.
Amer. Naturalist, xxix, pp. 1084-1091, with pls. xxxviii-xxxix, and 2 figs. in the text.
- 1895 B
Discovery, in the Oligocene of South Dakota, of *Eusmilus*, a genus of saber-toothed cats new to North America.
Amer. Naturalist, xxix, pp. 1091-1098.
Description of *Eusmilus dakotensis*.
- 1895 C
The Princeton scientific expedition of 1895.
Princeton Coll. Bull., vii, pp. 95-98.
- 1896 A
Some localities for Laramie mammals and horned dinosaurs.
Amer. Naturalist, xxx, pp. 112-120, with map on pl. iii.
- Hatcher, J. B.**—Continued. 1896 B
Recent and fossil tapirs.
Amer. Jour. Sci. (4), i, pp. 161-180, with pls. ii-v and 2 figs. in the text.
Notice of this paper by M. Schlosser appears in Neues Jahrb. Min. 1899, ii, pp. 314-316.
- 1897 A
Diceratherium proavium.
Amer. Geologist, xx, pp. 313-316, with pl. ix.
Regarded as distinct from *Aceratherium tri-dactylum*.
- 1900 A
The Carnegie Museum palaeontological expeditions of 1900.
Science (2), xii, pp. 718-720.
Records finding of specimen of *Platycodon nanus*, and the determination that it is a fish.
- 1900 B
Vertebral formula of *Diplodocus* (Marsh).
Science (2), xii, pp. 828-830.
- Hawkins, B. W.** 1874 A
On the pelvis of *Hadrosaurus*.
Proc. Acad. Nat. Sci. Phila., 1874, pp. 90-91.
- 1875 A
Pelvis of *Hadrosaurus*.
Proc. Acad. Nat. Sci. Phila., 1875, p. 329.
- Hay, O. P.** 1895 A
On the structure and development of the vertebral column of *Amia*.
Pubs. Field Columb. Mus., Zool., i, pp. 1-54, pls. i-iii.
- 1895 B
On certain portions of the skeleton of *Protostega gigas*.
Pubs. Field Columb. Mus., Zool., i, pp. 57-62, pls. iv, v.
- 1895 C
Description of a new species of *Petalodus* (*P. securiger*), from the Carboniferous of Illinois.
Jour. Geology, iii, pp. 561-564, with 2 figs. in the text.
- 1896 A
On the skeleton of *Toxochelys latiremis*.
Pubs. Field Columb. Mus., Zool., i, pp. 101-106, pls. xiv, xv.
- 1896 B
The structure and mode of development of the vertebral column.
Science (2), iv, pp. 959-960.
- 1898 A
Protospondyli and *Aetheospondyli* of A. S. Woodward.
Science (2), vii, p. 358.

- Hay, O. P.—Continued.** 1898 B
Observations on the genus of Cretaceous fishes called by Prof. Cope *Porthetus*.
Science (2), vii, p. 646.
Shows that Leidy's *Xiphactinus* is identical with Cope's later published *Porthetus*.
- 1898 C
Classification of the Amioid and Lepisosteoid fishes.
Amer. Naturalist, xxxii, pp. 341-349.
- 1898 D
Observations on the genus of fossil fishes called by Professor Cope *Porthetus*, by Dr. Leidy *Xiphactinus*.
Zool. Bulletin, ii, pp. 25-54, with 16 figs. in the text.
- 1898 E
Notes on species of *Ichthyodectes*, including the new species *I. cruentus*, and on the related and herein established genus *Gillicus*.
Amer. Jour. Sci. (4), vi, pp. 225-232, with 5 figs. in the text.
- 1898 F
On *Protostega*, the systematic position of *Dermochelys*, and the morphogeny of the chelonian carapace and plastron.
Amer. Naturalist, xxxii, pp. 929-948, with 3 figs. in the text.
- 1899 A
On the names of certain North American fossil vertebrates.
Science (2), ix, pp. 598-594.
The generic name *Wortmania* is proposed for *Hemiganus olartidensis* Cope; *Miolabis* for *Procamelus robustus*; *Homogalaz* for *Systemodon primævus*; *Equus cous* for *E. intermedius* Cope.
- 1899 B
On one little known and one hitherto unknown species of *Saurocephalus*.
Amer. Jour. Sci. (4), vii, pp. 299-304, with 5 figs. in the text.
- 1899 C
Notes on the nomenclature of some North American fossil vertebrates.
Science (2), x, pp. 253-254.
New generic name proposed, *Adjidaumo*; new specific names, *Cunis (f) marshii*, *Cynodictis hylactor*.
- 1899 D
Descriptions of two new species of tortoises from the tertiary of the United States.
Proc. U. S. Nat. Mus., xxii, pp. 21-24, with pls. iv-vi.
Describes *Hadrianus schucherti* and *Acherontemys heckmani*.
- Hay, O. P.—Continued.** 1899 E
On some changes in the names, generic and specific, of certain fossil fishes.
Amer. Naturalist, xxxiii, pp. 783-792.
- 1899 F
A census of the fossil *Vertebrata* of North America.
Science (2), x, pp. 681-684.
This paper purports to give the number of described species and genera belonging to each of the large groups of fossil vertebrates.
- 1899 G
On the nomenclature of certain American fossil vertebrates.
Amer. Geologist, xxiv, pp. 345-349.
- 1900 A
Descriptions of some vertebrates of the Carboniferous age.
Proc. Amer. Philos. Soc., xxxix, pp. 96-123, with pl. vii and 3 text figs.
New species described are *Dillodus lucasi*, *Cladodus girtyi*, *Rhizodopsis mazonius*, *Strepsodus arcanus*, *S. dawsoni*, and *Elonichthys peltigerus hypsilopsis*.
- Hay, Robert.** 1885 A
Notes on the fossil jaw of bison from the Pliocene of Norton County.
Trans. Kansas Acad. Sci., ix, p. 98.
- Haycraft, John Berry.** 1891 A
The development of the carapace of the *Chelonia*.
Trans. Roy. Soc., Edinburgh, xxxvi, pp. 335-342, with pl. xxxvi.
- Hayden, F. V.** 1858 A
Tertiary basin of White and Niobrara rivers.
Proc. Acad. Nat. Sci. Phila., pp. 147-158.
On pp. 157-158 is found a list of all the fossil Tertiary vertebrates known at that time from that region.
- 1858 B
Explorations under the War Department. Explanations of a second edition of a geological map of Nebraska and Kansas, based upon information obtained in an expedition to the Black Hills, under command of Lieut. G. K. Warren, Top. Engr., U. S. A.
Proc. Acad. Nat. Sci. Phila., 1858, pp. 139-158.
Contains order of Tertiary beds and a list of fossil vertebrates.
An abstract of this paper appeared in Amer. Jour. Sci., 1858, xxvi, pp. 404-408.
- 1866 A
Discovery of a mastodon tooth near Fort Kearney and another opposite St. Louis.
Proc. Acad. Nat. Sci., Phila., p. 316.
Occupies two and a half lines.

Hayes, Seth. 1895 A
An examination and description of mastodon and accompanying mammalian remains found near Cincinnati, June, 1894.

Jour. Cincinnati Soc. Nat. Hist., xvii, pp. 217-226.

Haymond, Rufus. 1844 A
Notice of remains of *Megatherium*, *Mastodon*, and Silurian fossils.
Amer. Jour. Sci. (1), xvi, p. 294-296.
A letter to the senior editor.

Hays, Isaac. 1830 A
Description of a fragment of the head of a new fossil animal discovered in a marl pit near Moorestown, N. J.
Trans. Amer. Philos. Soc. (2), iii, pp. 471-477, pl. xvi.
Proposal of new genus *Saurodon* with species *S. lanciformis* and *S. leanus* (leae).

1834 A
Description of specimens of inferior maxillary bones of mastodons in the cabinet of the American Philosophical Society, with remarks on the genus *Tetracaulodon* (Godman), etc.
Trans. Amer. Philos. Soc. (2), iv, pp. 317-339, with pls. xx-xxix.

1841 A
[Remarks on collection of bones, mostly of *Mastodon*, exhibited by Dr. Koch.]
Proc. Amer. Phil. Soc., ii, pp. 102-103, 106-106.

1842 A
[Review of paper by Prof. Rich. Owen on Koch's collection of mammalian remains, especially of the genus *Tetracaulodon*.]
Proc. Amer. Philos. Soc., ii, pp. 183-184.

1842 B
[On the mastodontoid animals in the collection of Mr. Koch.]
Proc. Amer. Phil. Soc., ii, pp. 264-266.

1843 A
On the family *Proboscidea*, their general character and relations, their mode of dentition, and geological distribution.
Proc. Amer. Phil. Soc., iii, pp. 44-48.

1844 A
[Remarks on bones of "*Tetracaulodon*," mastodon, and elephant.]
Proc. Amer. Philos. Soc., iv, pp. 30-43.

Hays, Isaac—Continued. 1846 A
[Remarks in regard to recently discovered mastodons in New York and New Jersey.]
Proc. Amer. Philos. Soc., iv, p. 269.

1852 A
[Remarks on tooth of fossil tapir from North Carolina.]
Proc. Acad. Nat. Sci. Phila., vi, p. 53.

See also **Horner and Hays.**

Haseltine, John. 1835 A
Fossil tooth.
Amer. Jour. Sci., xxvii, pp. 166-168.
Describes a fossil jaw containing teeth which appear to have belonged to a young mastodon. Found in Chautauque County, N. Y.

Hébert, Edmund. 1855 A
Note sur le tibia du *Gastornis parisensis*.
Comptes rend. Acad. Sci., Paris, xl, pp. 679-682.

1855 B
Note sur le fémur du *Gastornis parisensis*.
Comptes rend. Acad. Sci., Paris, xl, pp. 1214-1217.

1855 C
Tableau des fossiles de la craie de Meudon et description de quelques espèces nouvelles.
Mém. Soc. géol. de France, (2), v, pp. 345-374, with pls. xxvii-xxix.
This paper is quoted by A. S. Woodward for 1854.

1856 A
Recherches sur la faune des premiers sédiments tertiaires Parisiens (mammifères pachydermes du genre *Coryphodon*).
Ann. Sci. Naturelles (4), Zool., vi, pp. 87-136, with pls. iii, iv.

Heckel, Joh. Jakob. 1843 A
Abbildungen und Beschreibungen der Fische Syriens, nebst einer neuen Classification und Charakteristik sämtlicher Gattungen der Cyprinen.
Stuttgart, 1843, pp. 1-258, with pls. 1-xxlii.
Pp. 234-244, with pl. xxlii, are devoted to the fossil fishes of the Lebanon. The genera *Pycnosternitz* and *Isodus* are characterized.

1850 A
Ueber die Wirbelsäule fossilen Ganoiden.
Sitzungsber. k. Akad. Wissensch. Wien., math.-phys. Cl., v, pp. 358-368, with 4 text figs.

- Heckel, Joh. Jakob**—Cont'd. 1854 A
 Ueber den Bau und die Eintheilung der Pycnodonten, nebst kurzer Beschreibung einiger neuen Arten derselben.
 Sitzungsber. k. Akad. Wissensch. Wien., math.-phys. Cl., xii, pp. 433-463.
- 1856 A
 Beiträge zur Kenntniss der fossilen Fische Oesterreichs.
 Denkschr. k. Akad. Wissensch. Wien., math.-naturw. Cl., xi, pp. 187-274, with pls. 1-xv.
 Also issued separately with pp. 1-88.
- Helm, F.** 1891 A
 On the affinities of *Hesperornis*.
 Nature, xliii, p. 368.
- Hemstedt, R.** 1870 A
 Ueber einigen Besonderheiten der Schädelknochen von *Lepus* und über das knöcherne Gehörorgan desselben Genus.
 Archiv f. Anat., Physiol. u. wissenschaft. Med., Jahrg. 1870, pp. 437-453, pl. xi.
- Hensel, Reinhold.** 1859 A
 Ueber einen fossilen Muntjac aus Schlesien.
 Zeitschr. deutsch. geol. Gesellsch. xi, pp. 251-279, with pls. x-xii.
- 1860 A
 Ueber *Hipparion mediterraneum*.
 Abhandl. k.-p. Akad. Wissensch. Berlin, 1860. pp. 27-121, with pls. 1-iv.
- 1875 A
 Zur Kenntniss der Zahnformel für die Gattung *Sus*.
 Nova Acta k. Leop.-Carol. Akad., xxxvii, No. 5, pp. 1-40, with pl. xxvi.
- Hertwig, O.** 1874 A
 Über Bau und Entwicklung der Placoidschuppen und der Zähne der Selachier.
 Jenaische Zeitschr. Naturwiss. viii, pp. 331-404, with pls. xii-xiii.
- 1876 A
 Über das Hautskelet der Fische.
 Morpholog. Jahrbuch, ii, pp. 324-396, with pls. xxiii-xxviii.
 Describes the dermal skeleton of the Silurids and of *Acipenseridae*.
- 1879 A
 Ueber das Hautskelet der Fische.
 Morpholog. Jahrbuch, v, pp. 1-21, with pls. 1-iii.
 Describes dermal skeleton of *Leptosteidae* and *Polypteridae*.
- Hertwig, O.**—Continued. 1881 A
 Ueber das Hautskelet der Fische. III. Das Hautskelet der *Pediculati*, der *Discoboli*, der Gattung *Diana*, der *Centriscidae*, einiger Gattungen aus der Familie der *Triglidae* und der *Plectognathen*.
 Morpholog. Jahrbuch, vii, pp. 1-42, with pls. 1-iv.
- Hibbert, Samuel.** 1836 A
 On the fresh-water limestone of Burdiehouse, in the neighborhood of Edinburgh, belonging to the Carboniferous group of rocks, with supplementary notes on other fresh-water limestones.
 Trans. Roy. Soc. Edinburgh, xiii, pp. 169-232, with pls. v-xii.
- Hicks, L. E.** 1873 A
 Discovery of mastodon remains in Ohio.
 Amer. Jour. Sci. (3), v., p. 79.
- Higgins, E. T.** 1867 A
 On the otolites of fish, and their value as a test in verifying recent and fossil species.
 Jour. Linn. Soc. Lond., ix, pp., 157-166.
- Higley, W. K.** 1886 A
 A paper on *Elephas primigenius*.
 Bull. Chicago Acad. Sci., i, No. x, pp. 123-127, with 1 pl.
- Hilgard, Eugene W.** 1860 A
 Report on the geology and agriculture of Mississippi.
 Pp. 1-xiii, 1-391.
 Printed by order of the legislature. Contains remarks on a few fossil vertebrates, and on page 389 a list of fossil teeth of fishes, by Dr. Wm. Spillman.
- 1867 A
 On the Tertiary formations of Mississippi and Alabama.
 Amer. Jour. Sci. (2), xliii, pp. 29-41.
 Contains mention of *Zuglodon*.
- Hilgendorf, F.** 1866 A
 Ueber das Gebiss der hasenartigen Nager.
 Monatsber. k.-p. Akad. Wissensch. Berlin, 1865 (1866), p. 673.
- Hill, F. C.** 1881 A
 The fossil *Dinocerata* in the E. M. Museum at Princeton, N. J.
 Proc. Amer. Assoc. Adv. Sci., 29th meeting, Boston, 1880, pp. 524-527, with 1 woodcut.
 An abstract of paper read.
- 1886 A
 On the mounting of fossils.
 Amer. Naturalist, xx, pp. 358-359, with 8 woodcuts.

- Hills, R. C.** 1880 A
Note on the occurrence of fossils in the Triassic and Jurassic beds near San Miguel, in Colorado.
Amer. Jour. Sci., (3), xix, p. 490.
- Hitchcock, Charles H.** 1855 A
Impressions (chiefly tracks) on alluvial clay in Hadley, Mass.
Amer. Jour. Sci., (2), xix, pp. 391-396.
- 1865 A
Editorial notes.
In Edward Hitchcock's Supplement to the *Ichnology of New England*. (Hitchcock, E., 1868 A).
- 1866 A
Description of a new reptilian bird from the Trias of Massachusetts.
Annals Lyc. Nat. Hist. New York, viii, pp. 301-302.
Description of tracks of *Tarsodactylus cyparissus*.
- 1868 A
New American fishes from the Devonian.
Geol. Magazine (1), v, pp. 184-186, with 2 figs. in text.
Reports discovery of *Dinichthys herzeri* by Dr. Newberry.
- 1868 B
New Carboniferous reptiles and fishes from Ohio, Kentucky, and Illinois.
Geol. Magazine (1), v, pp. 186-187.
Reports Prof. Newberry's descriptions of fishes as presented before A. A. A. S., 1867.
- 1869 A
Note on the supposed fossil footmarks in Kansas.
Amer. Jour. Sci. (2), xvii, pp. 132-133.
- 1871 A
[Account and complete list of the *Ichnozoa* of the Connecticut Valley.]
Walling and Gray's Official Typographical Atlas of Massachusetts, pp. xx-xxi.
This account is part of a description of the geology of Massachusetts, and consists principally of a list of the fossil footmarks. This list is almost identical with the same author's list of 1869 (1869 B), with the exception of species published after 1871. I cite this paper, therefore, only in the cases of species, two or three in number, more particularly mentioned. Few new facts are presented.
- 1873 A
Footprints in the rocks.
Pop. Sci. Monthly, iii, pp. 428-441, with 7 text-figs.
- Hitchcock, Charles H.**—Cont'd. 1889 A
[Remarks on A. Wanner's paper on The discovery of fossil tracks in the Triassic of York County, Pa.]
Proc. Amer. Assoc. Adv. Sci., 37th meeting, Cleveland, 1888, p. 186.
- 1889 B
Recent progress in ichnology.
Proc. Boston Soc. Nat. History, xxiv, pp. 117-127.
Contains a list of the American Triassic species of *Ichnozoa* and descriptions of new forms. This list is identical with one published by the same author in 1871 (Hitchcock, C. H., 1871 A), with the exception of a few species published after the issue of the latter paper.
- Hitchcock, Edward.** 1836 A
Ornithichnology. Description of the footmarks of birds (*Ornithichnites*) on New Red sandstone in Massachusetts.
Amer. Jour. Sci., xxix, pp. 307-340, with a folded plate of 24 figs.
- 1837 A
Ornithichnites in Connecticut.
Amer. Jour. Sci., xxxi, pp. 174-175.
- 1837 B
Fossil footsteps in sandstone and graywacke.
Amer. Jour. Sci., (1), xxxii, pp. 174-176.
- 1841 A
Final report on the geology of Massachusetts.
Vol. II, pp. 301-331, with pls. xv-II. Northampton, 1841.
Pp. 458-525 are devoted to the descriptions of fossil fishes and footprints, and these are illustrated on pls. xxix-II.
- 1843 A
Description of five new species of fossil footmarks, from the Red Sandstone of the valley of Connecticut River.
Reports of the 1st, 2d, and 3d meetings of the Assoc. of Amer. Geol. and Naturalists, pp. 254-264, with pl. xi.
- 1844 A
Report on ichnolithology, or fossil footmarks, with a description of several new species, and the coprolites of birds, from the valley of the Connecticut River, and of a supposed footmark from the valley of the Hudson River.
Amer. Jour. Sci., xvii, pp. 292-322, with pls. iii-iv.
Abstract in *Neues Jahrb. Min.*, 1845, pp. 753-757.

Hitchcock, Edward—Continued. 1844 B
Rejoinder to the preceding article of Dr. Deane.

Amer. Jour. Sci., xvii, pp. 390-399.

A reply to Deane, J., 1844 B. See Deane, J., 1844 C.

1845 A

Extract of a letter from Prof. E. Hitchcock, embracing miscellaneous remarks upon fossil footmarks, the Lincolnite, etc., and a letter from Prof. Richard Owen, on the great birds' nests of New Holland.

Amer. Jour. Sci., xlviii, pp. 61-65.

1845 B

An attempt to name, classify, and describe the animals that made the fossil footmarks of New England.

Proc. 6th annual meeting Assoc. Amer. Geologists and Naturalists, New Haven, Conn., April, 1845, pp. 23-25.

In this paper the footmarks formerly described under the general terms *Ornithoidichnites* and *Sauroidichnites* are assigned generic names.

1847 A

Description of two new species of fossil footmarks found in Massachusetts and Connecticut, or of the animals that made them.

Amer. Jour. Sci. (2), iv, pp. 46-57, with 3 text figs.

1848 A

An attempt to discriminate and describe the animals that made the fossil footmarks of the United States, and especially of New England.

Mem. Amer. Acad. Arts and Sci. (2), iii, pp. 129-256, pls. 1-24.

1855 A

Shark remains from the Coal formation of Illinois, and bones and tracks from the Connecticut River sandstone.

Amer. Jour. Sci. (2), xx, pp. 416-417.

1856 A

On a new fossil fish and new fossil footmarks. I. History of the discovery and general character of the jaw of a new family of fossil fishes. II. Description of a new and remarkable species of fossil footmarks from the sandstone of Turner's Falls, in the Connecticut Valley.

Amer. Jour. Sci. (2), xxi, pp. 96-100, with 1 fig. in the text.

Hitchcock, Edward—Continued. 1856 B
Account of the discovery of the fossil jaw of an extinct family of sharks from the Coal formation.

Proc. Amer. Assoc. Adv. Sci., 9th meeting, 1855, Washington, D. C., pp. 229-230.

A description and figure, without genus and species, of *Edestus minor* Newb., found in Parke County, Ind.

1858 A

Ichnology of New England. A report on the sandstone of the Connecticut Valley, especially its fossil footmarks.

Boston, 1858. 4to, 220 pp.: with 60 quarto pls.

1861 A

Remarks upon certain points in ichnology.

Proc. Amer. Assoc. Adv. Sci., 14th meeting, Newport, 1860, pp. 144-156, with 4 figs. in the text.

1863 A

New facts and conclusions respecting the fossil footmarks of the Connecticut Valley.

Amer. Jour. Sci. (2), xxxvi, pp. 46-57.

1863 B

Supplement to the ichnology of New England.

Proc. Amer. Acad. Arts and Sci., vi, pp. 85-92.

In this paper a number of species formerly described is rejected or recorded as doubtful; two species are mentioned as new but not described; notes are given on other species, and there is a general discussion of fossil tracks.

1865 A

Supplement to the ichnology of New England. A report to the government of Massachusetts in 1863.

Boston, 1865. 4to; pp. 1-x, 1-96, pls. 1-xx.

Edited by his son, C. H. Hitchcock. Appendix A (pp. 39, 40) is entitled "Bones of *Megactylus polyzelus*;" Appendix B (pp. 40-93) consists of a descriptive catalogue of the Hitchcock ichnological cabinet at Amherst College.

1872 A

Discovery of a tooth of a mastodon in Massachusetts.

Amer. Jour. Sci. (3), iii, p. 146.

1885 A

[Letter to editor of Science announcing discovery of a mastodon's skeleton near Geneva, N. Y.]

Science, vi, p. 450.

Hitchcock, Fanny R. M. 1887 A

On the homologies of *Edestus*.

Amer. Naturalist, xxi, pp. 847-848.

Hitchcock, Fanny R. M.—C't'd. 1888 A
On the homologies of *Edestus*.
Proc. Amer. Assoc. Adv. Sci., 36th meeting,
New York, 1887, pp. 260-261.
Abstract of paper presented.

1888 B
Further notes on the osteology of the
shad (*Alosa sapidissima*).
Annals N. Y. Acad. Sci., iv, pp. 225-228, with
text fig.

Hodson, William B. 1846 A
Memoir on the *Megatherium* and
other extinct gigantic quadrupeds of
the coast of Georgia, with observations
on its geologic features.
Pp. 1-47, with 1 pl. and 2 maps. New York,
1846.
Besides the matter contributed by Hodson
this memoir contains a "Memorandum" by
Dr. Jos. Habersham (pp. 25-30) and "Observations"
by J. Hamilton Couper (pp. 31-47).

Hoernes, R. 1875 A
Vorlage von Wirbelthierresten aus
den Kohlenablagerungen von Trifail
in Steiermark.
Verhandl. k. k. geol. Reichsanstalt, 1875-
1876, pp. 310-313.

1876 A
Anthracotherium magnum Cuv aus
den Kohlenablagerungen von Trifail.
Jahrbuch k. k. geol. Reichsanstalt, xxvi,
pp. 209-242, with pl. xv.
Contains numerous references to the litera-
ture of this subject up to that time.

1877 A
Zur Kenntniss der *Anthracotherium*
dalmatinum Meyer.
Verhandl. k. k. geol. Reichsanstalt, 1875-1876,
No. 15, pp. 363-366.

1892 A
Zur Kenntniss der Milchbezeichnung
der Gattung *Entelodon* Aym.
Sitzungsber Akad. Wissensch. Wien, ci, pp.
17-24, with 1 pl.

Hoffmann, C. K. 1874 A
Amphibien.
Bronn's Klassen und Ordnungen des Thier-
reichs, vi, pp. 1-88, pls. i-xiv.
This portion of Dr. Hoffmann's work is de-
voted to the osteology of the *Batrachia*. In it
is found a list of 78 works on this subject.

1876 A
Beiträge zur Kenntniss des Beckens
der Amphibien und Reptilien.
Niederländisches Archiv Zoologie, iii, pp.
143-194, pls. x, xi, and 15 woodcuts in the text.

Hoffmann, C. K.—Continued. 1878 A
Beiträge zur Anatomie der Wirbel-
thiere.

Niederländisches Archiv Zoologie, iv, pp.
112-248, pls. ix-xiii.

Discusses the structure of the carpus and
tarsus of reptiles and amphibians, the integu-
ment and dermal skeleton of *Testudinata*,
morphology of ribs, etc.

1879 A
Beiträge zur vergleichenden Anato-
mie der Wirbelthiere. X; Über das
Vorkommen von Halsrippen bei den
Schildkröten; XI, Über das Verhält-
niss des Atlas und des Epistropheus
bei den Schildkröten; XII, Zur Mor-
phologie des Schultergürtels und des
Brustbeins bei Reptilien, Vögeln, Säuge-
thieren und dem Menschen.
Niederländisches Archiv Zoologie, v, pp.
19-114, with pls. ii-ix.

1890 A
Schildkröten.
Bronn's Klassen und Ordnungen des Thier-
reichs, vi, Abthell. iii, pp. 1-442, with pls.
i-xlviii.

Pp. 1-73 are devoted to the osteology of the
Testudinata. On pp. 1-3 is found a list of the
literature of the subject.

1890 B
Eidechsen und Wassereidechsen
(*Saurii* und *Hydrosauria*).
Bronn's Klassen und Ordnungen, vi, Abth.
iii, pp. 443-1399, with pls. xlix-cviii.
Pp. 443-610 and pls. xlix-lxxi are devoted
to the osteology of this group. Pp. 1299-1329
are devoted to the paleontology of the *Reptilia*.

1890 C
Schlangen und Entwicklungsges-
chichte der Reptilien.
Bronn's Klassen und Ordnungen des Thier-
reichs, vi, pt. 3, pp. 1401-2089, with pls. cviii-
clxx.
The description of the skeleton occupies pp.
1420-1448 and pls. cx-cxvi.

Holder, Joseph B. 1883 A
The Atlantic right whales: A contri-
bution embracing an examination of
(1) The exterior characters and osteo-
logy of a cisarctic right whale—male;
(2) The exterior characters of a cisar-
ctic right whale—female; (3) The osteo-
logy of a cisarctic right whale—sex not
known. To which is added a concise
résumé of historical mention relating
to the present and allied species.
Bulletin Amer. Mus. Nat. Hist., i, pp. 99-138,
with pls. x-xiii.

- Holland, W. J.** 1900 A
The vertebral formula in *Diplotocus*
Marsh.
Science (2), xi, pp. 816-818.
- Hollard, Henri.** 1853 A
Monographie de la famille des Balistides.
Ann. Sci. Naturelles (3), Zool., xx, pp. 71-114, with pls. I-III.
- 1854 A
Monographie des Balistides. Part 2.
Ann. Sci. Naturelles (4), Zool., i, pp. 39-72; 303-339.
This monograph is continued in vol. II, pp. 321-366, 1854, and in vol. IV, pp. 5-27, 1855.
- 1857 A
Étude sur les Gymnodontes, et en particulier sur leur ostéologie et sur les indications qu'elle peut fournir pour leur classification.
Annales des Sci. Naturelles (4), Zool., VIII, pp. 275-328.
- 1860 A
Mémoire sur le squelette des poissons plectognathes étudié au point de vue des caractères qu'il peut fournir pour la classification.
Annales Sci. Naturelles (4), Zool., XIII, pp. 5-46, pls. II, III.
- Hollick, Arthur.** 1894 A
[Remarks on *Spiraxia* Newb.]
Trans. N. Y. Acad. Sci., XIII, pp. 118-119.
- Holmes, F. S.** 1849 A
Notes on the geology of Charleston, S. C.
Amer. Jour. Sci., VII, pp. 187-201.
- 1850 A
[Remarks on paper by R. W. Gibbs concerning fossil *Equus* from Eocene of South Carolina.]
Proc. Amer. Assoc. Adv. Sci., 3d meeting, Charleston, S. C., 1850, pp. 68-69.
Remarks on Gibbs. R. W. 1850 C.
- 1850 B
Observations on the geology of Ashley River, South Carolina.
Proc. Amer. Assoc. Adv. Sci., 3d meeting, Charleston, S. C., 1850, pp. 201-204.
- 1858 A
Remains of domestic animals among post-Pliocene fossils in South Carolina.
16 pp., 8vo, Charleston, 1858.
This paper contains extract from a paper by Dr. Ledy and a letter by Professor Agassiz. In this letter Agassiz expresses the belief that "horses, sheep, bulls, and hogs not distinguishable at present from the domesticated species" existed in America before the advent of white men.
- Holmes, F. S.—Continued.**
- 1858 B
Remains of domestic animals among post-Pliocene fossils in South Carolina.
Amer. Jour. Sci. (2), XXV, pp. 442-443.
- 1859 A
[Remarks of Prof. F. S. Holmes on fossils from post-Pliocene of South Carolina, including a letter from Prof. L. Agassiz.]
Proc. Acad. Nat. Sci. Phila., 1859, pp. 177-186.
- Holmes, N.** 1857 A
[Remarks on contemporaneity of man and the mastodon.]
Trans. Acad. Sci. St. Louis, I, p. 117.
- Home, Everard.** 1819 A
An account of the fossil skeleton of the *Proteosaurus*.
Philos. Trans. Roy. Soc. Lond., CIX, pl. 209-211.
This paper was preceded by others of the same author in the volumes for 1814, 1816, but in these papers no name was applied to the remains.
- 1819 B
Reasons for giving the name *Proteosaurus* to the fossil skeleton which has been described.
Philos. Trans. Roy. Soc. Lond., CIX, pp. 212-216, with pl. xv.
- Honeyman, D.** 1874 A
Skeleton of a whale in the Quaternary of New Brunswick.
Amer. Jour. Sci. (3), VII, p. 597.
Supposed to be *Beluga vermontana*.
- 1874 B
On the Quaternary containing the New Brunswick fossil cetacean.
Amer. Jour. Sci. (3), VIII, p. 219.
- Hopkins, William.** 1855 A
Brief outline or general description of a remarkable fossil, not known to be described, and by some supposed to be an ichthyodolite.
Proc. Amer. Assoc. Adv. Sci., 8th meeting, Washington, D. C., 1854, pp. 287-290, with 2 woodcuts.
- Horner, W. E.** 1840 A
Note of the remains of the mastodon, and some other extinct animals collected together in St. Louis, Mo.
Proc. Amer. Philos. Soc., I, pp. 279-282.
This note refers to the collection of Doctor Koch at St. Louis.

Horner, W. E.—Continued. 1841 A
Note on the remains of the mastodon,
and some other extinct animals col-
lected together in St. Louis, Mo.

Amer. Jour. Sci., xi, pp. 56-59. (Extract from
Proc. Amer. Philos. Soc.)

An investigation of Koch's collection.

1841 B

Remarks on the dental system of the
mastodon, with an account of some
lower jaws in Mr. Koch's collection,
St. Louis, Mo., where there is a solitary
tusk on the right side.

Proc. Amer. Philos. Soc., i, pp. 307-308.

This is an abstract of "Horner, W. E., 1842 A."

1841 C

On the dental system of the mastodon.

Proc. Amer. Philos. Soc., ii, pp. 6-7.

A note of correction of the preceding paper.

1842 A

Remarks on the dental system of the
mastodon, with an account of some
lower jaws in Mr. Koch's collection,
St. Louis, Mo., where there is a solitary
tusk on the right side.

Trans. Amer. Philos. Soc., viii, pp. 53-59.

Horner, W. E., and Hays, Isaac. 1842 A

Description of an entire head, and
various other bones of the mastodon.

Trans. Amer. Philos. Soc., viii, pp. 37-48, pls.
i-iv.

Hovey, Edmund O. 1874 A

The largest fossil elephant tooth yet
described.

Proc. Amer. Assoc. Adv. Sci., 22d meeting,
Portland, 1873, p. 112.

Abstract of paper presented.

1900 A

The geological and palaeontological
collections in the American Museum of
Natural History.

Science (2), xii, pp. 757-760.

Howes, G. B. 1887 A

On the skeleton and affinities of the
paired fins of *Ceratodus*, with observa-
tions upon those of *Elasmobranchii*.

Proc. Zool. Soc. Lond., 1887, pp. 3-26, with
pls. i-iii.

1887 B

Morphology of the mammalian cora-
coid.

Jour. Anat. Physiol., xxi, pp. 190-198, with
pl. viii.

Howes, G. B.—Continued. 1890 A

Observations on the pectoral fin
skeleton of the living batoid fishes, and
of the extinct genus *Squaloraja*, with
especial reference to the affinities of
the same.

Proc. Zool. Soc. Lond., 1890, pp. 675-688,
with 10 figs. in the text.

1893 A

On the mammalian pelvis, with
especial reference to the young of
Ornithorhynchus anatinus.

Jour. Anat. and Physiol., xxvii, pp. 543-556,
with pl. xxviii.

1896 A

On the mammalian hyoid, with
especial reference to that of *Lepus*, *Hy-
raz*, and *Cholepus*.

Jour. Anat. and Physiol., xxx, pp. 513-526,
with pl. viii.

— See also **Hancock and Howes.**

Howes, G. B., and Davies, A. M.

1888 A

Observations upon the morphology
and genesis of supernumerary phalan-
ges, with especial reference to those of
the amphibia.

Proc. Zool. Soc., Lond., 1888, pp. 496-511,
with pls. xxiv, xxv.

Howes, G. B., and Harrison, J. 1893 A

On the skeleton and teeth of the
Australian dugong.

Report Brit. Assoc. Adv. Sci., 62d meeting,
Edinburgh, 1892, p. 790.

Howes, G. B., and Ridewood, W.

1888 A

On the carpus and tarsus of the
Anura.

Proc. Zool. Soc. Lond., 1888, pp. 411-182,
with pls. vii-ix.

Howes, G. B., and Swinnerton, H. H.

1900 A

On the development of the skeleton of
the Tuatera, *Sphenodon (Hatteria) punc-
tatus*.

Proc. Zool. Soc. Lond., 1900, pp. 516-517.

An abstract of a paper read before the society.

Howorth, H. H. 1870 A

The extinction of the mammoth.

Report of the Brit. Assoc. Adv. Sci., 39th
meeting, Exeter, 1869, pp. 90-91.

Abstract of paper presented.

1881 A

Climate of Siberia in the era of the
mammoth.

Amer. Jour. Sci. (3), xxi, p. 148.

Extracts from Howorth's paper in the Geo-
logical Magazine for December, 1880.

- Howorth, H. H.**—Continued. 1881 B
The sudden extinction of the mammoth.
Geol. Magazine (2), viii, pp. 309-315.
- 1892 A
Did the mammoth live before, during, or after the deposition of the glacial drift.
Geol. Magazine (3), ix, pp. 250-258; 396-406.
See Jukes-Brown, vol. ix, p. 477.
- 1893 A
The true horizon of the mammoth.
Geol. Magazine (3), x, pp. 20-27; 161-163; 353-355.
- 1894 A
The mammoth age was contemporary with the age of great glaciers.
Geol. Magazine (4), i, pp. 161-167.
- Hoy, P. R.** 1871 A
Dr. Koch's *Missourium*.
Amer. Naturalist, v, pp. 147-148.
- Hubrecht, A. A. W.** 1877 A
Beitrag zur Kenntniss des Kopfskelets der Holocephalen.
Niederländisches Archiv für Zoologie, iii, pp. 255-276, with pl. xvii.
See also Morphologisches Jahrbuch, iii.
- 1878 A
Pisces: Fische.
Bronn's Klassen und Ordnungen, vi, Abth. i, pp. 1-86, with pls. i-xii.
Of this work, pp. 1-48, pls. i-vii, appeared in 1876; pp. 49-80, pls. viii-x, in 1878; pp. 81-86, in 1885. Pp. 21-86 are devoted to a consideration of the anatomy of the elasmobranchs.
- 1896 A
Die Keimblase von *Tarsius*, ein Hilfsmittel zur schärferen Definition gewisser Säugethierordnungen.
Festschrift zum 70sten Geburtstage von Carl Gegenbaur, ii, pp. 149-178, with pl. i, and 15 figs. in the text.
Compares *Tarsius* with *Anaptomorphus*.
- Huene, Friedrich v.** 1900 A
Devonische Fischreste aus der Eifel.
Neues Jahrb. Min., Geol. und Pal., 1900, i, Abhandl., pp. 64-66, with 2 text figs.
Records finding of *Dinichthys* and *Rhynchodus*.
- Hulke, J. W.** 1879 A
Note (3d) on (*Eucamerotus* Hulke) *Ornithopsis* H. G. Seeley=*Bothriospondylus* Owen=*Chondrosteosaurus magnus* Owen.
Quart. Jour. Geol. Soc., xxxv, pp. 752-762, with 4 text figs.
- Hulke, J. W.**—Continued. 1879 B
Note on *Poiklopleuron bucklandi* of Eudes Deslongchamps (père) identifying it with *Megalosaurus bucklandi*.
Quart. Jour. Geol. Soc. Lond., xxxv, pp. 238-238, with pl. xii.
- 1880 A
Supplementary note on the vertebrae of *Ornithopsis*, Seeley=*Eucamerotus*, Hulke.
Quart. Jour. Geol. Soc., xxxvi, pp. 31-34, with pls. iii, iv.
- 1882 A
Note on the os pubis and ischium of *Ornithopsis eucamerotus*.
Quart. Jour. Geol. Soc., xxxviii, pp. 372-376, with pl. xiv.
- 1883 A
The anniversary address of the President.
Quart. Jour. Geol. Soc., xxxix, Proceedings, pp. 38-65, with 18 figs. in the text.
Discusses the structure of various extinct reptiles, *Enaliosauria* and *Dinosauria*, especially the structure of shoulder girdle and limbs.
- 1883 B
An attempt at a complete osteology of *Hypsilophodon foxii*.
Philosoph. Trans. Roy. Soc. London, clxxiii, pp. 1035-1062, pls. lxxi-lxxxi.
- 1884 A
The anniversary address of the President [of the Geol. Soc. Lond.].
Quart. Jour. Geol. Soc., vol. xi, Proceedings, pp. 37-67, with 8 text figs.
Discusses structure of certain *Dinosauria*, especially *Iguanodon*.
- 1885 A
Note on the sternal apparatus in *Iguanodon*.
Quart. Jour. Geol. Soc., xii, pp. 473-475, with pl. xiv.
- 1888 A
Contribution to the skeletal anatomy of the *Mesosuchia*, based on fossil remains from the clays near Peterborough in the collection of A. Leeds, esq.
Proc. Zool. Soc. Lond., 1888, pp. 417-442, with pls. xviii, xix.
- 1892 A
On the shoulder girdle in *Ichthyosaurus* and *Sauropterygia*.
Proc. Roy. Soc. London, lli, pp. 233-255, with 9 figs. in the text.
- Humbert, Alois.** See Pictet and Humbert.

- Humphry, G. M.** 1866 A
On the homologies of the lower jaw, and the bones connecting it with the skull in birds, reptiles, and fishes.
Report Brit. Assoc. Adv. Sci., 35th meeting, Birmingham, 1865, pp. 87-89.
- 1870 A
On the homological relations to one another of the mesial and lateral fins of osseous fishes.
Jour. Anat. and Physiol., v, pp. 58-66, pl. ii.
- Humphreys, John.** 1889 A
The suppression and specialization of teeth.
Proc. Birmingham Philos. Soc., vi, pp. 187-161.
See also **Windle and Humphreys.**
- Hunt, J. G.** 1874 A
[Report on food of the mastodon.]
Proc. Boston Soc. Nat. Hist., xvii, pp. 91-92.
- Hunter, William.** 1769 A
Observations on the bones, commonly supposed to be elephant's bones, which have been found near the river Ohio, in America.
Philos. Trans. Roy. Soc. Lond., 1768, lviii, pp. 34-45, with pl. iv.
- Hurst, C. Herbert.** 1893 A
The digits in a bird's wing: a study of the origin and multiplication of errors.
Natural Science, lli, pp. 276-281, with photographic reproduction of wing of *Archæopteryx*.
- 1895 A
The structure and habits of *Archæopteryx*.
Natural Science, vi, pp. 112-122; 180-186; 244-248, with 2 pls. and 2 figs. in the text.
- Hutchinson, H. N.** 1893 A
Extinct monsters. A popular account of some of the larger forms of ancient animal life, with illustrations by J. Smit and others.
Pp. 1-xxii, 1-270, with pls. 1-xxvi and 58 text figs.
Reviewed in *Natural Science*, ii, pp. 135-148.
- Huxley, Thomas H.** 1858 A
On *Cephalaspis* and *Pteraspis*.
Quart. Jour. Geol. Soc. Lond., xiv, pp. 267-280, with pls. xiv, xv, showing the microscopical structure of the skeleton.
- 1858 B
On a new species of *Plesiosaurus* from Street, near Glastonbury, with remarks on the structure of the atlas and axis
- Huxley, Thomas H.—Cont'd.**
vertebræ and of the cranium in that genus.
Quart. Jour. Geol. Soc. Lond., xiv, pp. 281-294.
- 1858 C
Observations on the development of some parts of the skeleton of fishes.
1. On the development of the tail in Teleostean fishes.
2. On the development of the palatopterygoid arc and hyomandibular suspensorium in fishes.
Quart. Jour. Micros. Sci., vii, pp. 33-46.
- 1859 A
Observations on the genus *Pteraspis*.
Report Brit. Assoc. Adv. Sci., 28th meeting, Leeds, 1858, pp. 82-83.
- 1859 B
On the dermal armour of *Jacare* and *Caiman*, with notes on the specific and generic characters of recent *Crocodylia*.
Jour. Linn. Soc. Lond., iv, pp. 1-28.
- 1859 C
On a new species of *Dicynodon* (*D. murrayi*) from near Colesberg, South Africa, and on the structure of the skull in the Dicynodonts.
Quart. Jour. Geol. Soc. Lond., xv, pp. 649-658, with pls. xxii, xxiii.
- 1861 A
On *Pteraspis dunensis* (*Archæoteuthis dunensis*, Roemer).
Quart. Jour. Geol. Soc. Lond., xvii, pp. 163-166, with 2 figs. in the text.
- 1861 B
Preliminary essay upon the systematic arrangement of the fishes of the Devonian epoch.
Mem. Geol. Surv. United Kingdom, decade 10, pp. 1-40; pls. 1-3.
- 1861 C
Phaneropleuron andersoni.
Mem. Geol. Surv. United Kingdom, decade 10, pp. 47-49; pl. iii.
- 1863 A
Description of *Anthracosaurus russelli*, a new labyrinthodont from the Lanarkshire coal field.
Quart. Jour. Geol. Soc. Lond., xix, pp. 56-68.
- 1864 A
On the cetacean fossils termed "Ziphius," by Cuvier, with a notice of a new species (*Belemnophius compressus*) from the Red Crag.
Quart. Jour. Geol. Soc. Lond., xx, pp. 388-396, with pl. xix.

- Huxley, Thomas H.—Cont'd. 1865 A**
On the osteology of *Glyptodon*.
Philosoph. Trans. Roy. Soc. Lond., clv, pp. 81-70; pls. 4-9.
- 1866 A
Illustrations of the structure of the
Crossopterygian ganoids.
Mem. Geol. Surv. United Kingd., decade
12, pp. 3-45, with pls. ii-x.
- 1867 A
On the classification of birds.
Proc. Zool. Soc. Lond., 1867, pp. 415-472,
with 36 figs. in the text.
- 1867 B
Description of vertebrate remains
from the Jarrow colliery, part i.
Trans. Roy. Irish Acad., xxiv, pp. 353-369,
with pls. xix-xxiii.
- 1868 A
On the animals which are most nearly
intermediate between birds and reptiles.
Proc. Roy. Soc. Lond., xvi, pp. 243-248.
Also in Ann. Mag. Nat. Hist. (4), i, 1868, pp.
220-224; Geol. Mag. (1), v, pp. 367-365.
- 1869 A
Triassic *Dinosauria*.
Nature, i, pp. 23-24.
Discusses, among other genera, *Bathynathus*
and *Belodon*.
- 1869 B
On the representatives of the malleus
and the incus of the *Mammalia* in the
other *Vertebrata*.
Proc. Zool. Soc. Lond., 1869, pp. 391-407, with
8 figs. in the text.
- 1869 C
On *Hyperodapedon*.
Quart. Jour. Geol. Soc., Lond., xxv, pp. 138-
152; 157-158, with 5 figs. in the text.
- 1869 D
On the upper jaw of *Megalosaurus*.
Quart. Jour. Geol. Soc. Lond., xxv, pp. 311-
314, with pl. xii.
- 1870 A
On the progress of palæontology.
Anniversary address delivered before
the Geological Society.
Nature, i, pp. 437-443.
- 1870 B
The anniversary address of the presi-
dent [of the Geol. Soc. Lond.].
Quart. Jour. Geol. Soc., Lond., xxvi; Proceed-
ings, pp. xxix-lxiv.
- 1870 C
Further evidences of the affinity be-
tween the Dinosaurian reptiles and
birds.
Quart. Jour. Geol. Soc. Lond., xxvi, pp. 12-31.
- Huxley, Thomas H.—Cont'd. 1870 D**
The classification and affinities of
the *Dinosauria*.
Quart. Jour. Geol. Soc. Lond., xxvi, pp. 52-51,
with pl. iii.
- 1872 A
A manual of the anatomy of verte-
brated animals.
Pp. 1-431, woodcuts 110. New York, D. Ap-
pleton & Co., 1872.
- 1874 A
On the structure of the skull and of
the heart of *Menobranchus lateralis*.
Proc. Zool. Soc. Lond., 1874, pp. 186-204,
with pls. xxix-xxxii.
- 1875 A
Note on the development of the col-
umella auris in the *Amphibia*.
Report Brit. Assoc. Adv. Sci., 44th meeting,
Belfast, 1874, pp. 141-142.
Abstract in Nature, vol. xi, 1874, p. 68.
- 1875 B
On *Stagonolepis robertsoni*, and on the
evolution of the *Crocodylia*.
Quart. Jour. Geol. Soc. Lond., xxxi, pp. 423-
438, with pl. xix.
- 1875 C
Amphibia.
Encyclop. Brit., ed. 9, i, pp. 750-771, with 26
figs. in the text.
- 1876 A
On *Ceratodus forsteri*, with observa-
tions on the classification of fishes.
Proc. Zool. Soc. Lond., 1876, pp. 24-59, with
11 woodcuts in the text.
- 1876 B
On the evidence as to the origin of
existing vertebrate animals.
Nature, xlii, pp. 388-389, 410-412, 429-430,
467-469, 514-516; xiv, pp. 33-34.
Abstracts of 6 lectures delivered at the
Royal School of Mines.
- 1876 C
The direct evidence of evolution; (ii),
the negative and favorable evidence.
Popular Sci. Monthly, lvi, pp. 207-223, 285-
298, with illus.
- 1880 A
On the cranial and dental characters
of the *Canidae*.
Proc. Zool. Soc. Lond., 1880, pp. 238-288, with
16 woodcuts in the text.
- 1880 B
On the application of the laws of
evolution to the arrangement of the
Vertebrata, and more particularly of the
Mammalia.
Proc. Zool. Soc. Lond., 1880, pp. 649-661.

- Huxley, Thomas H.**—Cont'd. 1883 A
On the oviducts of *Osmerus*, with remarks on the relations of the teleostean with the ganoid fishes.
Proc. Zool. Soc. Lond., 1883, pp. 181-189, with 2 woodcuts.
- 1887 A
Further observations on *Hyperodapedon gordoni*.
Quart. Jour. Geol. Soc., xliii, pp. 675-694, with pls. xxvi, xxvii.
- Hyrtl, Joseph.** 1853 A
Ueber normale Quertheilung der Säurierwirbel.
Sitzungsber. Akad. Wissensch. Wien, math.-nat. Cl., x, pp. 185-192.
- 1854 A
Beitrag zur Anatomie von *Heterotis ehrenbergii* C. V.
Denkschr. k. Akad. Wissensch. Wien, math.-nat. Cl., viii, pp. 73-88, with pls. i-iii.
The writer makes comparisons of *Heterotis* with *Osteoglossum*.
- Ihering, H. von.** 1891 A
Sobre la distribution geográfica de los Creodontes.
Revista Argentina de Historia Natural, i, pp. 209-213.
- 1891 B
Ueber die zoologisch-systematische Bedeutung der Gehörorgane der Teleostier.
Zeitschr. Wissensch. Zool., lli, pp. 477-514, with pl. xxxi.
See also Sitzungsbericht Gesellsch. naturf. Freunde Berlin, 1891, pp. 23-26.
- Iwanson, Nikolai.** 1887 A
Der *Scaphirhynchus*. Vergleichend-anatomische Beschreibung.
Bull. Soc. Imp. des Naturalistes de Moscou (n. s.), i, pp. 1-41, with pls. i, ii.
- Jaccard, Auguste.** See Pictet and Jaccard.
- Jackson, C. T.** 1851 A
Description of five new species of fossil fishes.
Proc. Boston Soc. Nat. Hist., iv, pp. 138-142.
Describes *Pulexonicus alberti*, *P. brownii*, and *P. catrasti*; the others unnamed.
- 1851 B
Descriptions of the fossil fishes of the Albert coal mine.
Pp. 22-26 of "Report on the Albert coal mine," etc., Boston, 1851.
Plates not issued with the text and missing in the copy examined.
- Jackson, J. B. S.** 1845 A
On the fossil bones of *Mastodon giganteus* from marl pit in New Jersey.
Proc. Boston Soc. Nat. Hist., ii, pp. 60-62.
- Jaeger, Georg Friedr.** 1828 A
Ueber die fossile Reptilien welche in Württemberg aufgefunden worden sind.
Pp. i-vi, 1-48, with pls. i-vi. Stuttgart. 1828.
- 1844 A
Ueber die Stellung und Deutung der Zähne des Wallroesses.
Müller's Archiv f. Anat., Physiol., etc., 1844, pp. 70-75.
- 1851 A
Berichtigung einer Angabe Cuviers über einen Narwhalschädel des Stuttgarter Naturalienkabinetts, an welchen beide Stosszähne aus den Zahnhöhlen hervorragen sollen.
Jahreshefte Vereins vaterl. Naturkunde Württembergs, vii, pp. 24-32, with 2 figs. on pl. i.
- 1857 A
Bemerkungen über die Veränderungen der Zähne von Säugethieren im Lauf ihrer Entwicklung, namentlich (A) bei dem Narwhal (*Monodon monoceros*) und (B) dem Cachalot (*Physeter macrocephalus*).
Bull. Soc. Imp. Naturalistes Moscou, xxx, pt. ii, pp. 571-580, with 1 text fig.
- Jaekel, O.** 1884 A
Die Selachier aus dem oberen Muschelkalk Lothringens.
Abhandl. geol. Spezialkarte von Elsass-Lothringen, iii, pp. 276-332, with pls. vii-x.
- 1890 A
Ueber die systematische Stellung und über fossile Reste der Gattung *Pristiophorus*.
Zeitschr. deutsch. geol. Gesellsch., xliii, pp. 86-120, with pls. ii-v, and 7 figs. in the text.
See also Jaekel, O., in Archiv. für Naturgeschichte, lvii, Bd. 1, pp. 16-48.
- 1890 B
Ueber *Phaneropleuron* und *Hemictenodus*, n. g.
Sitz.-Ber. Gesellsch. naturforsch. Freunde Berlin, 1890, pp. 1-8, with 2 figs. in the text.
- 1890 C
Ueber die Kiemenstellung und die Systematik der Selachier.
Sitz.-Ber. Gesellsch. naturforsch. Freunde Berlin, 1890, pp. 47-57, with 3 figs. in the text.
- 1890 D
Bemerkungen über Flossenstacheln oder Ichthyodoruliten im Allgemeinen.
Sitz.-Ber. Gesellsch. naturforsch. Freunde Berlin, 1890, pp. 119-131, with 3 figs. in the text.

Jaekel, O.—Continued. 1891 A
 Ueber *Coccosteus*.
 Zeitschr. deutsch. geol. Gesellsch., xiii, pp.
 773-774.

— 1891 B
 Ueber *Menaspis armata* Ewald.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde
 Berlin, 1891, pp. 115-131.
 Discusses, among other matters, the system-
 atic position of the Elasmobranchs.

— 1891 C
 Referate über die in den letzten
 Jahren erschienenen Arbeiten über
 Pleuracanthiden.
 Neues Jahrbuch Mineralogie, etc., 1891, II,
 pt. III, pp. 161-170.
 Herein are included reviews of a number of
 writers on the genera *Pleuracanthus*, *Xenacanthus*,
 and *Orthacanthus*. These are Chas. Brong-
 niart, L. Doederlein, E. Koken, and Anton
 Fritsch.

— 1891 D
 Ueber mikroskopische Unters-
 uchungen im Gebiet der Paläontologie.
 Neues Jahrbuch Mineralogie, etc., 1891, I,
 Abhandl., pp. 178-198.

— 1892 A
 Ueber *Cladodus* und seine Bedeutung
 für die Phylogenie der Extremitäten.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde
 Berlin, 1892, pp. 80-92.

— 1893 A
 Ueber die Ruderorgane der Placo-
 dermen.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde
 Berlin, 1893, pp. 178-181.

— 1893 B
 [Review of Dr. J. S. Newberry's "The
 Palæozoic fishes of North America."]
 Neues Jahrbuch Mineral., etc., 1893, I, pp.
 174-177.

— 1894 A
 Die eocänen Selachier vom Monte
 Bolca. Ein Beitrag zur Morphogenie
 der Wirbelthiere.
 Berlin, 1894, with 8 pls. and 39 text figs., pp.
 1-176, 4 to.

— 1894 B
 Ueber sogenannten Faltenzähne und
 complicirtere Zahnbildungen über-
 haupt.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde
 Berlin, 1894, pp. 146-153.

— 1895 A
 Organisation der Pleuracanthiden.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde,
 Berlin, 1895, pp. 69-85, with 2 figs. in the text.

Jaekel, O.—Continued. 1895 B
 Ueber eine neue Gebissform fossiler
 Selachier.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde
 Berlin, 1895, pp. 200-202.
 Refers to the dentition of *Janassa* and *Pela-*
iodus.

— 1896 A
 Ueber die Körperform und Hautbe-
 deckung von Stegocephalen.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde
 Berlin, 1896, pp. 1-8.

— 1896 B
 Die Stammform der Wirbelthiere.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde
 Berlin, 1896, pp. 107-129.

— 1898 A
 Ueber die verschiedenen Rochen-
 typen.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde
 Berlin, 1898, pp. 44-53.

— 1898 B
 Ueber *Hybodus*.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde,
 1898, pp. 135-146, with 3 figs. in the text.

— 1898 C
 Verzeichniss der Selachier des Main-
 zer Oligocäns.
 Sitz.-Ber. Gesellsch. naturforsch. Freunde
 Berlin, 1898, pp. 161-169.

— 1899 A
 Ueber die Organisation der Petalo-
 donten.
 Zeitschr. deutsch. geol. Gesellsch. II, pp.
 258-298, with pls. xiv, xv, and 7 text figs.

— 1899 B
 Ueber die Zusammensetzung des
 Kiefers und Schultergürtels von *Acan-*
thodes.
 Zeitschr. deutsch. geol. Gesellsch., II, Pro-
 tokolle, pp. 56-60, with 2 text figs.
 For more extended paper see Verhandl.
 deutsch. zool. Gesellsch., 1899, pp. 249-258, with
 2 text figs.

— 1900 A
 Ueber die Reste von Edestiden und
 die neue Gattung *Helicoprion*.
 Neues Jahrb. Min., 1900, II, 144-148.
 A review of Karpinsky, A. 1899 A.

James, Joseph F. 1891 A
 The Biological Society of Washington.
 Amer. Naturalist, xxv, pp. 298-299.
 Contains report of remarks by Profs. H. F.
 Osborne and O. C. Marsh on Cretaceous mam-
 mals.

- Jefferson, Thomas.** 1799 A
A memoir on the discovery of certain bones of a quadruped of the clawed kind in the western parts of Virginia.
Trans. Amer. Philos. Society, iv, pp. 246-260.
The first account of the bones of *Megalomys*.
This work is said by C. G. Giebel to have been issued in 1797.
- Jeffries, J. A.** 1881 A
On the fingers of birds.
Bull. Nuttall Ornithological Club, vi, pp. 6-11.
- 1882 A
On the claws and spurs on birds' wings.
Proc. Bost. Soc. Nat. Hist., xxi, pp. 301-306.
- 1883 A
Sternal processes in *Gallinæ*.
Science, ii, p. 622.
- 1883 B
Osteology of the cormorant.
Science, ii, p. 739.
- 1884 A
Osteology of the cormorant.
Science, iii, p. 59.
- Johnston, Christopher.** 1859 A
Note on Odontology.
Amer. Jour. Dental Science, ix, pp. 337-343.
Gives the name *Astrodon* to certain teeth found by him at Bladensburg, Maryland. No description is furnished.
- Jordan, D. S.** 1891 A
Relations of temperature to vertebræ among fishes.
Proc. U. S. Nat. Mus., xiv, pp. 107-120.
- Jordan D. S., and Evermann, B. W.** 1896 A
The fishes of North and Middle America. A descriptive catalogue of the species of fish-like vertebrates found in the waters of North America, north of the Isthmus of Panama.
Washington: Government Printing Office, 1896, pt. i, pp. i-lx, 1-1240.
Bull. U. S. Nat. Mus. No. 47.
- 1898 A
The fishes of North America. A descriptive catalogue of the species of fish-like vertebrates found in the waters of North America, north of the Isthmus of Panama.
Part ii, pp. i-xxx, 1241-2183; part iii, pp. i-xxiv, 2184-3136.
- 1900 A
The fishes of North and Middle America, etc.
Part iv, pp. i-ci, 3137-3313, with pls. i-cccxcii.
- Jourdan, —** 1861 A
Description de restes fossiles de deux grands mammifères constituant le genre *Rhizoprion* (ordre des cétacés, groupés des Delphinoïdes) et le genre *Dinocyon* (ordre des carnassiers), famille des canides.
Ann. Sci. Naturelles (4), xvi, pp. 367-374, pl. x.
- Karpinsky, A.** 1899 A
Ueber die Reste von Edestiden und die neue Gattung *Helicoprion*.
Verhandl. k. russ. mineralog. Gesellsch., St. Petersburg (2), xxxvi, No. 2.
In Russian; quoted from Jaekel, 1900 A.
- Kaup, J.** 1832 A
Ueber zwey Fragmente eines Unterkiefers von *Mastodon angustidens* Cuv., nach welchen diese Art in die Gattung *Tetracaulodon* gehört.
Oken's Isis, xxv, cols. 627-630.
- 1832 B
Ueber *Rhinoceros incisivus* Cuv., und eine neue Art, *Rhinoceros schleiermacheri*.
Oken's Isis, 1832, cols. 898-904.
Establishes the genus *Accrathierium*.
- 1833 A
[Letter addressed to von Leonhard.]
Neues Jahrbuch Mineral, etc., 1833, p. 327.
Establishes the genus *Hippotherium*, with *Equus gracilis* as type.
- 1835 A
Die zwei urweltlichen pferdeartigen Thiere welche im tertiären Sande bei Eppelsheim gefunden werden, bilden eine eigene Unter-Abtheilung der Gattung Pferd, welche in der Zahl der Fingerglieder den Uebergang zur Gattung *Palaotherium* macht und zwischen diese und Pferd zu stellen ist.
Nova Acta Caes. Leop.-Carol. Akad. Naturforsch., xvii, pp. 173-182, with pl. xlii B.
- 1843 A
Bemerkungen über die drei Arten *Mastodon* und die drei Arten *Tetracaulodon* des Hon. Isaak Hays.
Archiv. Naturgesch., ix, 1, pp. 168-175.
See Hays, I., Proc. Amer. Phil. Soc., 1843, vol. ii, pp. 264-266.
- Kehner, F. A.** 1876 A
Zur Phylogenie des Beckens.
Verhandl. des naturhist.-medicin. Vereins zu Heidelberg, v, pp. 346-359; pls. vii, viii.
- Kehrer, Gustav.** 1886 A
Beiträge zur Kenntniss des Carpus und Tarsus der Amphibien, Reptilien und Säuger.
Berichte naturforsch. Gesellsch. zu Freiberg, Berichte i, pp. 73-88, with pl. iv.

- Kersten, Hermann.** 1821 A
Capitis *Trichechi rosmari* descriptio
osteologica. Dissertatio inauguralis.
Berolini, 8 vo., pp. 5-24, with pls. i-iii.
- Keyes, Charles R.** 1888 A
On the fauna of the lower Coal meas-
ures of central Iowa.
Proc. Acad. Nat. Sci. Phila., 1888, pp. 222-246,
with pl. xii.
Notes occurrence of *Petrodus occidentalis* and
an unidentified species of *Diplodus*.
-
- 1891 A
Fossil faunas in central Iowa.
Proc. Acad. Nat. Sci. Phila., 1891, pp. 242-266.
Notes occurrence of *Thrinacodus duplicatus*?
and *Deltodus intermedius*.
-
- 1894 A
Palæontology of Missouri (part ii).
Missouri Geol. Survey, v, pp. 1-266, with
pls. xxxiii-lvi.
The vertebrates are catalogued in chapter
xv, pp. 229-239. The synonymy is given, but
no descriptions or figures, and no species are
mentioned, except the fishes. A list of the
fossil vertebrates of Missouri was published in
1890 by G. Hambach (which see), and that con-
tained, with rare omissions, the species which
are found in this list of Keyes; also some which
are not included in Keyes's list.
- Kindle, Edward M.** 1898 A
A catalogue of the fossils of Indiana,
accompanied by a bibliography of the
literature relating to them.
22d Ann. Report Depart. Geol. and Natural
Resources [of Indiana] for 1897, pp. 407-514.
The list of fossil vertebrates is found on pp.
484-486.
- King, Alfred T.** 1844 A
Description of fossil footmarks sup-
posed to be referable to the classes
birds, *Reptilia*, and *Mammalia* found in
the Carboniferous series in Westmore-
land County, Pa.
Proc. Acad. Nat. Sci. Phila., ii, pp. 175-180,
and 7 woodcuts.
-
- 1845 A
Description of fossil footmarks found
in the Carboniferous series in West-
moreland County, Pa.
Amer. Jour. Sci., xlviii, pp. 343-352, with 12
figs.
-
- 1845 B
Description of fossil footprints.
Proc. Acad. Nat. Sci. Phila., ii, pp. 299-300.
No names are given to the footprints.
-
- 1845 C
Footprints.
Amer. Jour. Sci., xlix, pp. 216-217, with figs.
Figures the footprints described in King,
A. T. 1845 A.
- King, Alfred T.—Continued.** 1846 A
Footprints in the coal rocks of West-
moreland County, Pa.
Amer. Jour. Sci. (2), i, p. 268, with 2 text figs.
No names are given to these tracks. Lyell
regards them as artificial. (Lyell, C. 1846 A.
p. 26.)
- King, Clarence.** 1878 A
Systematic geology.
U. S. Geol. Explor. 40th parallel, Clarence
King, geologist in charge. i.
In this volume are found several lists of the
fossil vertebrates which characterize the Ter-
tiary formations. No descriptions of the re-
mains are given. The lists are found on the
following pages: Jurassic, p. 346; Wasatch, p.
376-377; Bridger, p. 403-405; Uinta, p. 407;
White R., p. 411; John Day, p. 424; Loup Fork,
p. 430; Equus beds, p. 443. These lists were no
doubt furnished by Prof. O. C. Marsh.
- King, William.** 1850 A
A monograph of the Permian fossils
of England. London, 1850. Printed
for the Palæontographical Society.
4p. i-xxxviii; 1-258, with pls. i-xxviii.
- Kingsley, J. S., and Buddick, W. H.** 1900 A
The ossicula auditus and mammalian
ancestry.
Amer. Naturalist, xxxiii, pp. 219-230, with 3
text figs.
- Kiprijanoff, Valerian.** 1852 A
Fisch-Ueberreste im Kurskschen
eisenhaltigen Sandsteine. I, II.
Bull. Soc. Imp. Naturalistes de Moscou, xxv,
pt. 2, pp. 221-226; 483-496, with pls. xii, xiii.
-
- 1853 A
Fisch-Ueberreste im Kurskschen
eisenhaltigen Sandsteine.
Bull. Soc. Imp. Naturalistes de Moscou,
xxvi, pt. 2, pp. 286-294, with pl. ii.
-
- 1854 A
Fisch-Ueberreste im Kurskschen
eisenhaltigen Sandsteine. V.
Bull. Soc. Imp. Naturalistes de Moscou,
xxvii, pt. 2, pp. 273-397, with pls. ii, iii.
-
- 1881 A
Studien über die fossilen Reptilien
Russlands. Th. I. Gattung *Ichthyosau-
rus* König, aus dem Severischen Sand-
stein oder Osteolith der Kreidegruppe.
Mém. Acad. Sci. St. Pétersbourg (7), xxviii,
No. 8, pp. 1-103, with pls. i-xviii.
A considerable portion of this paper and a
number of the plates are devoted to the micro-
scopic structure of the bones of *Ichthyosaurus*.
-
- 1882 A
Studien über die fossilen Reptilien
Russlands. Theil II, Gattung *Plesio-*

Kiprijanoff, Valerian—Continued.

saurus Conybeare, aus dem Severischen Sandstein oder Osteolith der Kreidegruppe.

Mém. Acad. Imp. Sci. St. Pétersbourg (7), xxx, No. 6, pp. 1-56, with pls. i-xix.

Pp. 34-47, with pls. xv-xix, are devoted to the microscopical structure of the bones of species of *Plesiosaurus*.

Kittary, Modeste. 1850 A

Recherches anatomiques sur les poissons du genre *Acipenser*.

Bull. Soc. Imp. Naturalistes Moscou, xxiii, pt. 2, pp. 389-446, with pls. vi, vii.

Kittl, Ernst. 1887 A

Beiträge zur Kenntniss der fossilen Säugethiere von Maragha in Persien. I. Carnivoren.

Annalen des k. k. naturhistorischen Hofmuseums, Wien, ii, pp. 317-333, with pls. xiv-xviii.

Klaatsch, H. 1890 A

Zur Morphologie der Fischschuppen und zur Geschichte der Hartsubstanzgewebe. I. Die Schuppen der Sela-chier. II. Die Rhombenschuppen der Ganoiden. III. Die Schuppen der Teliostier. IV. Die Cycloidschuppen der Dipnoer und fossiler Ganoiden. Die Phylogenese der "Cycloidschuppen." V. Die Schuppen von *Ichthyophis*. VI. Die Ableitung der Schuppen. VII. Die Geschichte der Hartsubstanzgewebe.

Morpholog. Jahrbuch, xvi, pp. 97-203; 209-258, with pls. vi-viii.

Appended are references to the works of 48 authors who have treated the subject.

— 1893 A

Ueber die Wirbelsäule der Dipnoer. Verhandl. anatom. Gesellschaft, 7ten Versammlung, 1893, pp. 180-182.

Discusses the structure of the vertebral column of *Ceratodus* and *Protopterus*, followed by remarks by Hatschek.

— 1894 A

Ueber die Herkunft der Scleroblasten.

Morphologisches Jahrbuch, xxi, pp. 153-240, with pls. v-ix and 6 figs. in text.

A contribution to knowledge of the genesis of bone.

— 1896 A

Die Brustflosse der Crossopterygier. Ein Beitrag zur Anwendung der Ar-

Klaatsch, A.—Continued.

chipterygium-Theorie auf die Gliedmassen der Landwirbelthiere.

Festschrift zum 70sten Geburtstage von Carl Gegenbaur, i, pp. 261-391, with pls. i-iv, and 42 text figs.

Appended is a list of 75 papers pertaining to the subject discussed.

Klein, E. F. 1863 A

Beiträge zur Osteologie der Crocodil-schädel.

Jahreshefte Vereins vaterl. Naturkunde in Württemberg, xix, pp. 70-100.

— 1879 A

Beiträge zur Osteologie des Schädels der Knochenfische.

Jahreshefte Vereins vaterl. Naturkunde in Württemberg, xxxv, pp. 66-126, with pl. i.

— 1881 A

Beiträge zur Osteologie der Fische. Jahreshefte Vereins vaterl. Naturkunde in Württemberg, xxxvii, pp. 325-360, with pl. ii.

— 1885 A

Beiträge zur Bildung des Schädels der Knochenfische, ii.

Jahreshefte Vereins vaterl. Naturkunde in Württemberg, xii, pp. 107-261, with pls. ii, iii.

— 1886 A

Beiträge zur Bildung des Schädels der Knochenfische, iii.

Jahreshefte Vereins vaterl. Naturkunde in Württemberg, xlii, pp. 206-300, with pls. vii, viii.

Klever, Ernst. 1889 A

Zur Kenntniss der Morphogenese des Equidengebisses.

Morpholog. Jahrbuch, xv, pp. 308-330, with pls. xi-xiii.

Appended is a list of the works of 42 authors who have treated the subject of the dentition of the *Equidae*.

Klippart, John H. 1875 A

Discovery of *Dicotyles* (*Platygonus*) *compressus*, Le Conte.

Proc. Amer. Assoc. Adv. Sci., 23d meeting, Hartford, 1874, pp. 1-6.

Also in Cincinnati Quarterly Journal of Science, 1875, vol. ii, pp. 1-6.

— 1875 B

Mastodon remains in Ohio. Cincinnati Quart. Jour. Sci., ii, pp. 151-155.

Klunzinger, C. B. 1871 A

Synopsis der Fische des Rothen Meeres. II Theil.

Verhandl. zool.-botan. Gesellsch. in Wien, xxi, pp. 441-688.

- Kneeland, S.** 1850 A
The *Manatus* not a cetacean but a pachyderm.
Proc. Amer. Assoc. Adv. Sci., 3d meeting, Charleston, 1850, pp. 42-47.
- Kner, Rudolph.** 1847 A
Ueber die beiden Arten *Cephalaspis lloydii* und *lewissii*, Agassiz.
Haidinger's Naturwiss. Abhandl. 1, pp. 159-168, with pl. v.
- 1860 A
Zur Charakteristik und Systematik der Labroiden.
Sitz.-Ber. k. Akad. Wissensch. Wien, math.-nat. Cl., xl, pp. 41-57, with pls. i-ii.
- 1863 A
Ueber einige fossile Fische aus den Kreide- und Tertiär-schichten von Comen und Podsed.
Sitz.-Ber. k. Akad. Wissensch. Wien, math.-nat. Cl., xlviii, pp. 126-148, with pls. i-iii.
- 1866 A
Betrachtungen über die Ganoiden, als natürliche Ordnung.
Sitz.-Ber. k. Akad. Wissensch. Wien, liv, Abth. 1, pp. 519-536.
- 1866 B
Die fossile Fische der Asphaltschiefer von Seefeld in Tirol.
Sitz.-Ber. k. Akad. Wissensch. Wien, math.-naturw. Cl., liv, Abth. 1, pp. 303-334, with pls. i-vi.
For "Nachtrag" i, see the Sitzungsber. lvi, Abth. i, pp. 898-909; "Nachtrag" ii, pp. 909-913, with pls. i-iii.
- 1866 C
Die Fische der bituminösen Schiefer von Raibl in Kärnten.
Sitz.-Ber. k. Akad. Wissensch. Wien, liii, pp. 1-46, with pls. i-vi.
- 1867 A
Ueber *Orthacanthus decheni* Goldf. oder *Xenacanthus decheni* Beyr.
Sitz.-Ber. k. Akad. Wissensch. Wien, math.-naturw., Cl., lv, pp. 540-584, with pls. i-x.
- 1868 A
Ueber *Conchopoma gadiforme* nov. gen. et spec. und *Acanthodes* aus dem Rothliegenden (der untern Dyas) von Lebach bei Saarbrücken in Rhein-preussen.
Sitz.-Ber. k. Akad. Wissensch. Wien, math.-naturw., Cl., lvii, pt. 1, pp. 278-304, with pls. i-viii.
- Knight, —** 1835 A
[On fossil jaw of buffalo.]
Amer. Jour. Sci., xxvii, p. 166.
Opinion expressed on a jaw found at Chatauqua Lake, N. Y.
- Knight, W. C.** 1895 A
A new Jurassic plesiosaur from Wyoming.
Science (2), ii, p. 449.
Describes *Cimoliosaurus rex* Knight.
- 1898 A
Some new Jurassic vertebrates from Wyoming.
Amer. Jour. Sci. (4), v, 186, with 2 figs. in the text.
Describes *Ceratodus robustus* and *C. americanus*.
- 1898 B
Some new Jurassic vertebrates from Wyoming.
Amer. Jour. Sci. (4), v, pp. 378-380, with plate of 3 figs.
Describes and figures *Megaleneusaurus rex*, a new genus based on *Cimoliosaurus rex* Knight.
- 1899 A
The Nebraska Permian.
Jour. Geology, vii, pp. 357-374.
- 1900 A
Some new Jurassic vertebrates.
Amer. Jour. Sci. (4), x, pp. 115-119, with 1 page of figs.
- Kober, J.** 1882 A
Studien über *Talpa europæa*.
Verhandl. naturf. Gesellsch. in Basel, vii Theil, pp. 62-119, with pls. i, ii.
- 1884 A
Studien über *Talpa europæa*.
Verhandl. naturf. Gesellsch. in Basel, vii Theil, pp. 465-485, with pl. vii.
- Koch, Albert.** 1839 A
The mammoth (mastodon? Eds.).
Amer. Jour. Sci., xxxvi, pp. 198-200.
This article is for the most part an extract from the *Phila. Presbyterian*, but Leidy (1869 A, p. 393) attributes the authorship to Dr. Koch.
- 1839 B
Remains of the mastodon in Missouri.
Amer. Jour. Sci., xxxvii, pp. 191-192.
- 1840 A
A short description of fossil remains found in the State of Missouri by the author.
Written and published by Albert Koch, proprietor of the St. Louis Museum, St. Louis, Churchill & Stewart, printers, 1840, pp. 1-8, with 1 pl.

Koch, Albert—Continued. 1842 A

On the genus *Tetracaulodon*.
Proc. Geol. Soc. Lond., iii, pp. 714-716.

1843 A

Description of the *Missourium theriotoaulodon* (Koch), or Missouri leviathan (*Leviathan missouriensis*), together with its supposed habits and Indian traditions; also comparison on the whale, crocodile, and missourium with the leviathan as described in the 41st chapter of the Book of Job.

Fifth ed., enlarged, Dublin, 1843, pp. 1-28, with fig. on the front cover.

An edition of this was published as early as 1841.

1845 A

Die Riesenthier der Urwelt, oder das neuentdeckte *Missourium theriotoaulodon*, und die Mastodonten im Allgemeinen und Besondern.

Berlin, 1845, pp. 99, pls. viii.

For review of this paper see Neues Jahrb. 1845, pp. 760-766.

1845 B

[Extract from a letter to Dr. Geinitz on *Zygodon*.]

Neues Jahrb. f. Mineralogie, 1845, p. 676, with 3 figs. in the text.

1851 A

Entdeckung der Zeuglodonten-Reste.

Haldinger's Berichte Mitthell. Freunden Naturwissensch. in Wien, vii, pp. 198-199, 202-204.

1851 B

Das Skelet des *Zeuglodon macrospodylus*.

Haldinger's Naturwissensch. Abhandl., iv, and with its own pagination, pp. 53-64, with pl. vii.

1857 A

Mastodon remains in the State of Missouri, together with evidences of the existence of man contemporaneously with the mastodon.

Trans. Acad. Sci. St. Louis, i, pp. 61-64.

1857 B

[Report of Dr. Koch on explorations in Mississippi and Arkansas for the purpose of obtaining bones of *Zeuglodon*.]

Trans. Acad. Nat. Sci. St. Louis, i, pp. 17-19.

Koch, Albert—Continued. 1858 A

On the bones of *Mastodon*.

Trans. Acad. Sci., St. Louis, i, pp. 116-117.

Remarks made at meeting of the Academy and referring to Koch's discoveries.

Besides the papers above given which owe their authorship to A. Koch the following are herewith recorded, but have not been examined:

Beschreibung des *Missurian Theriotoaulodon* Koch, oder Missuri-Leviathan (*Leviathan missouriensis*); die vermuthete Lebensart desselben und indianische Traditionen über der Ort, wo es ausgegraben wurde; ferner Vergleichen des Wallfisches, des Krokodils und des *Missurium* mit dem Leviathan, wie solcher im 41 Capitel des Buches Hiob beschrieben wird.

Zeitschrift f. vergleich. Erdkunde, Magdeburg, 1845, iv, pp. 33-51.

Die Mastodontoiden der Urwelt.

With 8 plates. Berlin, 1845.

Kurze Beschreibung des *Hydrarchos harlani* (Koch), eines riesenmässigen Meeresgeheuers und dessen Entdeckung in Alabama in Nord-Amerika im Frühjahr 1845. Dresde[n].

Ueber die Gattung *Zeuglodon* Owen (*Basilosaurus* Harlan, *Hydrarchus* Koch, *Dorudon* Gibbes).

Uebersicht Schlesische Gesellschaft vaterl. Cultur, 1850, pp. 59-60.

Köl liker, Albert. 1859 A

On the different types in the microscopic structure of the skeleton of osseous fishes.

Proc. Roy. Soc. London, 1859, ix, pp. 666-668.

Issued in separate form, pp. 1-13.

1860 A

Ueber das Ende der Wirbelsäule der Ganoiden und einige Teleostier.

Pp. 27, with 4 pls., Leipzig, 1860.

1860 B

On the structure of the chorda dorsalis of the Plagiostomes and some other fishes, and on the relation of the proper sheath to the development of the vertebrae.

Proc. Roy. Soc. Lond., x, pp. 214-222.

Köl liker, Albert—Continued. 1863 A
 Weitere Beobachtungen über die
 Wirbel der Selachier, insbesondere
 über die Wirbel der *Lamnoiden*, nebst
 allgemeinen Bemerkungen über die
 Bildung der Wirbel der Plagiostomen.
 Pp. 1-51, with pls. i-v; Frankfurt-on-Main,
 1864.

Koenen, A. von 1883 A
 Beitrag zur Kenntniss der Placoder-
 men des norddeutschen Oberdevon's.
 Abhandl. k. Gesellsch. Wissensch. Göttin-
 gen, xxx, pp. 1-41, with pls. i-iv.

1890 A
Coccosteus decipiens.
 Geol. Magazine (3), vii, p. 191.
 Discusses question of the existence of a pec-
 toral spine.

1895 A
 Ueber einige Fischreste des nord-
 deutschen und böhmischen Devons.
 Abhandl. k. Gesellsch. Wissensch. Göttin-
 gen, xl, math.-phys. Cl., art. 2, pp. 1-37, with
 pls. i-v.

Koken, Ernst. 1883 A
 Die Reptilien der norddeutschen
 unteren Kreide.
 Zeitschr. deutsch. geol. Gesellsch., xxxv,
 pp. 735-827, with pls. xxiii-xxv.

1884 A
 Ueber Fisch-Otolithen, insbesondere
 über diejenigen der norddeutschen Oli-
 göcän-Ablagerungen.
 Zeitschr. deutsch. geol. Gesellsch., xxxvi,
 pp. 500-565, with pls. ix-xii.

1886 A
 [Review of papers by L. Dollo and
 V. Lemoine.]
 Neues Jahrb. Min. Geol. und Paläont., 1886,
 ii, pp. 289-292, Referate.

1887 A
 Die Dinosaurier, Crocodiliden und
 Saurpterygier des norddeutschen
 Wealden.
 Paläontolog. Abhandl., iii, pp. 309-419 (1-111),
 with 9 pls. and 30 figs. in the text.

1888 A
 Neue Untersuchungen an tertiären
 Fisch-Otolithen.
 Zeitschr. deutsch. geol. Gesellsch., xl, pp.
 274-305, with pls. xvii-xix.
 Describes and figures 23 species of otoliths of
 fishes from the Tertiary deposits of the South-
 ern States of the United States.

Koken, Ernst—Continued. 1888 B
Thoracosaurus macrorhynchus, Bl., aus
 der Tuffkreide von Maastricht.
 Zeitschr. deutsch. geol. Gesellsch., xl, pp.
 754-773, with pl. xxxii.

1888 C
Eleutherocercus, ein neuer Glyptodont
 aus Uruguay.
 Abhandl. k. Akad. Wissensch. Berlin, 1888,
 phys.-math. Cl., Abh. i, pp. 1-23, pls. i, ii.

1889 A
 Ueber *Pleuracanthus* Ag. oder *Xenacanthus* Beyr.
 Sitz.-Ber. Gesellsch. naturf. Freunde Berlin,
 1889, pp. 77-94, with 5 figs. in the text.

1891 A
 Neue Untersuchungen an tertiären
 Fisch-Otolithen, ii.
 Zeitschr. deutsch. geol. Gesellsch., xliii,
 pp. 77-170, with pls. i-x, and 27 figs. in the text.
 Description of species, a list of known
 species of Europe, and a discussion of the sig-
 nificance of the otoliths and of the organ of
 hearing for the natural classification of fishes.

1891 B
 [Remarks on the *Physostomi*.]
 Sitz.-Ber. Gesellsch. naturf. Freunde Berlin,
 1891, pp. 26-28.
 Deals especially on relationship of *Cyprinidae*
 and *Sturidae*.

1893 A
 Beiträge zur Kenntniss der Gattung
Nothosaurus.
 Zeitschr. deutsch. geol. Gesellsch., xiv,
 pp. 337-377, with pls. vii-xi, and 12 figs. in the
 text.

1896 A
 Die Reptilien des norddeutschen
 Wealden.
 Paläontolog. Abhandl., vii (n. s. iii), pp.
 117-126 (1-10) with 4 pls. and 1 fig. in the text.

Kollmann, J. 1888 A
 Handskelett und Hyperdaktylie.
 Verhandl. anatom. Gesellsch., 2ten Ver-
 samml., pp. 25-39, with plate of 12 figs.
 A paper with the same title is found in Ver-
 handl. Gesellsch. Basel, viii, 1890, pp. 604-626;
 pl. viii.

Komnek, L. See Van Beneden and
 Komnek.

Koninck, L. G. de. 1844 A
 Description des animaux fossiles que
 se trouvent dans le terrain carbonifère
 de Belgique.
 Pp. i-iv; 1-716, with atlas of 60 pls.
 Contains (pp. 608-613) descriptions of a few
 fishes.

- Koninck, L. G. de**—Continued. 1878 A
Faune du Calcaire carbonifère de la Belgique. Première partie, poissons et genre nautile.
Annales Musée nat. Belgique, II, pp. 9-76, with pls. I-viii, and figs. in the text.
The pages referred to are devoted to descriptions of the fishes.
- Kosmak, George William.** 1895 A
Dermal armor of the sturgeon.
Jour. New York Microscop. Soc., XI, pp. 1-21, with pls. xli-vi-xlviii.
- Köstlin, Otto.** 1844 A
Der Bau des knöchernen Kopfes in den vier Klassen der Wirbelthiere.
Stuttgart, 1844, 8 vo, pp. 1-x; 1-506, with pls. 1-iv.
- Kowalevsky, Woldemar.** 1873 A
Monographie der Gattung *Anthrocotherium* Cuv. und Versuch einer natürlichen Classification der fossilen Hufthiere.
Palaeontographica, xxii, 181-346, with pls. vii-xvii.
- 1873 B
Sur l'*Anchitherium aurelianense* Cuv. et sur l'histoire paléontologique des chevaux.
Mém. Acad. Imp. Sci. St. Pétersbourg (7), xx, No. 5, pp. 1-iv; 1-78, with pls. 1-iii.
- 1874 A
On the osteology of the *Hypotamidae*.
Philosoph. Trans. Roy. Soc. Lond., clxiii, pp. 19-94; pls. 35-40.
- 1876 A
Osteologie des Genus *Entelodon* Aym.
Palaeontographica, xxii, 415-450, with pls. xxv-xxvii.
- Kramberger, Dragutin.** 1881 A
Studien über die Gattung *Saurocephalus* Harlan.
Jahrbuch k.-k. geol. Reichsanstalt Wien., xxxi, pp. 371-379.
Saurocephalus and related genera are placed in family *Scopeloidet* and subfamily *Saurodon-tidae*, and a new genus *Solenodon* is described.
- Krause, W.** 1881 A
Zum Sacralhirm der Stegosaurier.
Biolog. Centralbl., I, p. 461.
- Krauss, Ferd.** 1858 A
Beiträge zur Osteologie des surinamischen *Manatus*.
Archiv. f. Anat. Physiol. wissensch. Med., 1858, pp. 390-425.
- Krauss, Ferd.**—Continued. 1862 A
Beiträge zur Osteologie des surinamischen *Manatus*.
Archiv f. Anat. Physiol., wissensch. Med., 1862, pp. 415-427; pl. xiii.
- 1870 A
Beiträge zur Osteologie von *Halicore*.
Archiv f. Anat. Physiol., wissensch. Med., 1870, pp. 525-614.
- Krefft, Gerard.** 1870 A
Description of a gigantic amphibian allied to the genus *Lepidosiren*, from the Wide Bay district, Queensland.
Proc. Zool. Soc. Lond., 1870, pp. 221-224, with 3 figs.
Description of *Ceratodus forsteri*.
- Kükenthal, Willy.** 1888 A
Über die Hand der Cetaceen.
Anatom. Anzeiger, iii, pp. 638-646; 912-915, with 6 figs. in the text.
- 1889 A
Vergleichend-anatomische und entwicklungsgeschichtliche Untersuchungen an Walthieren.
Denkschr. med.-naturwiss. Gesellsch. zu Jena., iii, pp. 1-200, with pls. 1-xiii.
For conclusion see Kükenthal 1893 C.
- 1890 A
Über die Hand der Cetaceen.
Anatom. Anzeiger v, pp. 44-52, with 8 figs. in the text.
- 1890 B
Über Reste eines Hautpanzers bei Zahnwalen.
Anatom. Anzeiger, v, pp. 237-240.
- 1890 C
Ueber die Anpassung von Säugethieren an das Leben im Wasser.
Spengel's Zoolog. Jahrbücher, Abth. f. Systematik, Geog. und Biol. d. Thiere, v, pp. 373-399.
Translation in Ann. and Mag. Nat. Hist. (6), vii, 1891, pp. 153-179.
- 1891 A
Einige Bemerkungen über Säugethierbezeichnung.
Anatom. Anzeiger, vi, pp. 364-370.
- 1891 B
Das Gebiss von *Didelphys*.
Anatom. Anzeiger, vi, pp. 658-666, with 8 figs. in the text.
Abstract in Zoolog. Record for 1891, Mamm., p. 10.
- 1891 C
Ueber die Anpassung von Säugethieren an das Leben im Wasser.
Zoolog. Jahrbücher, Systematik, etc., v, pp. 373-399.

- Kükenthal, Willy**—Continued. 1892 A
 Ueber die Entstehung und Entwicklung des Säugetierstammes.
 Biolog. Centralbl., xii, pp. 400-413.
 A translation of this paper is found in Ann. and Mag. Nat. Hist. (6), x, 1892, pp. 365-380.
- 1892 B
 Ueber den Ursprung und die Entwicklung der Säugetierzähne.
 Jenaische Zeitschr., xxvi (xix), pp. 469-489.
- 1893 A
 Zur Entwicklung des Handskelettes des Krokodils.
 Morpholog. Jahrbuch, xix, pp. 42-55, with pl. II.
 The part of the Morpholog. Jahrbuch containing this paper was issued in October, 1892.
- 1893 B
 Mittheilungen über den Carpus des Weisswals. (Die Bildung des Hamatum und das Vorkommen von zwei und drie Centralien.)
 Morpholog. Jahrbuch, xix, pp. 56-64, with pl. III.
- 1893 C
 Vergleichend-anatomische und entwicklungsgeschichtliche Untersuchungen an Walthieren. II.
 Denkschr. med.-naturwiss. Gesellsch. zu Jena., III, pp. 224-448, with pls. xiv-xxv.
- 1894 A
 Entwicklungsgeschichtliche Untersuchungen am Pinnipediergebisse.
 Jenaische Zeitschr., xxviii (xxi), pp. 76-118, with pls. III and IV.
- 1895 A
 Ueber Rudimente von Hinterflossen bei Embryonen von Walen.
 Anatom. Anzeiger, x, pp. 534-537.
- 1895 B
 Zur Dentitionenfrage.
 Anatom. Anzeiger, x, pp. 653-659.
 Treats of the origin of the mammalian dentition.
- 1896 A
 Zur Entwicklungsgeschichte des Gebisses von *Manatus*.
 Anatom. Anzeiger, xii, pp. 513-526, with 10 figs. in the text.
- 1897 A
 Vergleichend-anatomische und entwicklungsgeschichtliche Untersuchungen an Sirenen.
 Semon's Zoolog. Forschungsreisen in Australien, etc., iv, pp. 1-76, with pls. I-V and 47 text figs.
- Kunth, A.** 1872 A
 Ueber *Pteraspis*.
 Zeitschr. deutsch. geol. Gesellsch., xxiv, pp. 1-8, with pl. I.
- L. P. B.** 1885 A
 Professor Marsh's Monograph of the *Dinocerata*.
 Amer. Jour. Sci. (3), xxix, pp. 173-204, with 88 figs in the text.
- Lahusen, I.** 1880 A
 Zur Kenntniss der Gattung *Bothriolepis*, Eichw.
 Verhandl. russ.-kais. mineralog. Gesellsch., St. Petersburg (2), xv, pp. 125-139, with pls. I, II.
- Lambe, Lawrence M.** 1898 A
 On the remains of mammoths in the museum of the Geological Survey Department.
 Ottawa Naturalist, xii, pp. 136-137.
- 1899 A
 On reptilian remains from the Cretaceous of northwestern Canada.
 Ottawa Naturalist, xlii, pp. 68-70.
 See also Summary report of Geol. Surv. Dept. Canada for year 1898, pp. 182-190.
 Account of fossil remains found in districts of Alberta and Assinibola.
- Landois, ———.** 1871 A
 Das Gebisse eines jungen Mammuth.
 Verhandl. naturhist. Vereines preuss. Rheinlande, etc., xxviii, Corr. Bl., pp. 47-49, with pl. IX.
- 1881 A
 Ueber die Reduktion der Zehen bei den Säugethieren durch Verkümmern und Verschmelzung.
 Verhandl. naturf. Vereines preuss. Rheinlande, etc., xxxviii, Corr. Bl., pp. 125-129.
- Lang, Fr., and Rüttimeyer, L.** 1867 A
 Die fossilen Schildkröten von Solothurn.
 Neue Denkschriften d. allgem. schweiz. Gesellsch. f. d. gesammte Naturwissensch., xxii, art. 5, pp. 1-48, with pls. I, II, consisting of profiles and sections and a geological map of the region.
- Langdon, F. W.** 1883 A
 The giant beaver (*Castoroides ohioensis*) Foster.
 Jour. Cincinnati Soc. Nat. Hist., vi, pp. 238-239.
- Lankester, E. R.** 1862 A
 Restoration of *Pteraspis*.
 The Geologist, v, pp. 461-462, with 3 text figs.

- Lankester, E. R.**—Continued. 1864 A
On the discovery of the scales of
Pteraspis, with some remarks on the
cephalic shield of that fish.
Quar. Jour. Geol. Soc., xx, pp. 194-197, with
pl. xii.
-
- 1864 B
Restoration of *Pteraspis*.
The Geologist, vii, p. 136.
-
- 1865 A
On the genus *Pteraspis*.
Report Brit. Assoc. Adv. Sci., 34th meeting,
Bath, 1864, p. 100. See also p. 58.
Divided into subgenera *Pteraspis*, *Cyathaspis*,
and *Scaphaspis*.
-
- 1870 A
On a new *Cephalaspis* discovered in
America, etc.
Geol. Magazine, vii, pp. 397-398, with 3
woodcuts in the text.
Describes *C. dawsoni* and refers to the find-
ing of *Machairacanthus sulcatus*.
-
- 1873 A
On *Holaspis sericeus*, and on the re-
lationship of the fish-genera, *Pteraspis*,
Cyathaspis, and *Scaphaspis*.
Geol. Magazine, x, pp. 241-245, with pl. x.
-
- 1873 B
On *Scaphaspis* and *Pteraspis*.
Geol. Magazine, x, pp. 190-192.
Extract from the Academy of Jan. 1, 1873,
replying to Kunth.
-
- 1873 C
Note on *Holaspis sericeus*.
Geol. Magazine (1), x, pp. 331-332, with 1
woodcut.
-
- 1874 A
Magister Schmidt on the shields of
Pteraspis and *Scaphaspis*.
Geol. Magazine (2), i, p. 288.
See also Moseley and Lankester.
- Lapham, I. A.** 1855 A
On the number of teeth of the *Mas-
todon giganteus*.
Proc. Bost. Soc. Nat. Hist., v, pp. 133-136.
- Lartet, Éd.** 1837 A
Fossiles provenant du dépôt de San-
san.
Compte rendu Acad. Sci., Paris, v, pp. 418,
427.
-
- 1866 A
Note sur deux nouveaux siréniens
fossiles des terrains tertiaires du bassin
de la Garonne.
Bull. Soc. Géol. France, xxiii, pp. 673-686,
pl. xlii.
- Lataste, Fernand.** 1889 A
Considerations sur les deux denti-
tions des mammifères.
Jour. l'Anat. Physiol., xxv, pp. 200-222.
Numerous references are made to the writ-
ings of other authors.
- Lathrop, S. P.** 1851 A
Mastodon in northern Illinois.
Amer. Jour. Sci. (2), xii, p. 439.
- Lawley, R.** 1875 A
Monografia del genere *Notidanus*.
Pp. 1-34, with pls. i-iv, Firenze, 1875.
This paper appears to have been published
also in Atti Soc. Toscano, lli, 1877.
- Lazier and Parieu.** 1839 A
Note sur la machoire d'un carnassier
fossile, nommé Hyénodon *leptorhynchus*.
Ann. Sci. Naturelles, (2), xi, pp. 27-31, with
pl. ii.
- Lea, Isaac.** 1849 A
On reptilian footmarks found in the
gorge of Sharp Mountain, near Potts-
ville, Pa.
Proc. Amer. Phil. Soc., iv, pp. 91-94, with fig.
in text.
Noticed in Amer. Jour. of Sci., vol. ix, pp.
124-125.
Describes *Sauropus primævus*.
-
- 1850 A
On traces of a fossil reptile (*Sauropus
primævus*) found in the Old Red sand-
stone.
Report Brit. Assoc. Adv. Sci., 19th meeting,
Birmingham, 1849, p. 56.
-
- 1851 A
Remarks on the bones of a fossil
reptilian quadruped.
Proc. Acad. Nat. Sci. Phila., v, pp. 171-172.
Describes *Clepeysaurus pennsylvanicus*, but
gives no generic name.
-
- 1851 B
Remarks on *Clepeysaurus pennsylvani-
cus*.
Proc. Acad. Nat. Sci. Phila., v, p. 206.
The generic name is here first given.
-
- 1852 A
On the fossil footmarks in the red
sandstones of Pottsville, Schuylkill
County, Pa.
Trans. Amer. Philos. Soc., x, pp. 307-317, pls.
xxx-i-xxx-iii.
-
- 1853 A
Description of a fossil saurian of the
New Red sandstone formation of Penn-
sylvania.
Jour. Acad. Nat. Sci. Phila. (2), pp. 185-202,
pls. xvii-xix.
Description of *Clepeysaurus pennsylvanicus*.

Lea, Isaac—Continued.

1853 B

On some new fossil molluscs in the Carboniferous slates of the anthracite seams of the Wilkesbarre coal formation.

Jour. Acad. Nat. Sci. Phila. (2), II, pp. 208-206, with pl. xx.

Contains, on p. 206, with pl. xx, figs. 4, 5, a description of *Paleonticus ? leidyana*.

1855 A

Fossil footmarks in the red sandstone of Pottsville, Pa.

Philadelphia, 1855, pp. 1-16, with 1 pl. Elephant folio.

Contains plate showing tracks of *Sauropus primævus* of the natural size.

1856 A

[Description of *Centemodon sulcatus*.]

Proc. Acad. Nat. Sci. Phila., 1856, pp. 77-78.

1856 B

Reptilian remains in the New Red sandstone of Pennsylvania.

Amer. Jour. Sci. (2), xxii, pp. 122-124.

Repeated on pp. 422-423, same volume. From Proc. Acad. Nat. Sci. Phila., viii, 1856, p. 77.

1858 A

[Remarks respecting *Clepeysaurus* and *Bathynathus borealis*.]

Proc. Acad. Nat. Sci. Phila., 1858, pp. 90-92.

Leboucq, H.

1887 A

La nageoire pectorale des Cétacés au point du vue phylogénique.

Anatom. Anzeiger, II, pp. 202-208.

1888 A

Über das Fingerskelett der Pinnipedier und der Cetaceen.

Anatom. Anzeiger, III, pp. 530-534.

Also in Verhandl. Anat. Gesellschaft, 1888, pp. 40-44.

1896 A

Ueber Hyperphalangie bei den Säugetieren.

Anatom. Anzeiger, xli, Ergänzungsheft, pp. 174-176.

Leche, W.

1877 A

Studien über das Milchgebiss und die Zahnhomologien bei den *Chiroptera*. Archiv Naturgesch., xliiii, I, pp. 353-364.

1880 A

Zur Morphologie der Beckenregion bei *Insectivora*.

Morpholog. Jahrbuch, vi, pp. 597-602.

1893 A

Studien über die Entwicklung des Zahnsystems bei den Säugethiern.

Morpholog. Jahrbuch, xix, pp. 502-547, with 20 text figs.

Abstract in Zoological Record for 1893, Mamm., p. 8.

Leche, W.—Continued.

1893 B

Nachträge zu Studien über die Entwicklung des Zahnsystems bei der Säugethiern.

Morpholog. Jahrbuch, xx, pp. 113-142, with 12 figs. in the text.

1895 A

Zur Entwicklungsgeschichte des Zahnsystems der Säugethiere, zugleich ein Beitrag zur Stammesgeschichte dieser Thiergruppe. I. Theil. Ontogenie.

Bibliotheca Zoologica, Heft 17, pp. 1-160, with 19 pls. and 20 text figs. Stuttgart, 1895.

Pp. 157-160 of this important work are occupied by a list of the authorities which the author has cited.

Reviewed by Max Fürbringer, Morpholog. Jahrbuch, vol. xxiii, p. 592.

1896 A

Zur Entwicklungsgeschichte des Zahnsystems der Säugethiere, zugleich ein Beitrag zur Stammesgeschichte dieser Gruppe.

Biolog. Centralbl., xvi, pp. 233-236.

1896 B

Die Entwicklung des Zahnsystems der Säugethiere.

Compte rendu des séances du troisième Congrès Internat. de Zoologie. Leyden, 1895 pp. 279-289.

1897 A

Zur Morphologie des Zahnsystems der Insectivoren.

Anatom. Anzeiger, xliii, pp. 1-11, with 10 figs. in the text.

1897 B

Zur Morphologie des Zahnsystems der Insectivoren.

Anatom. Anzeiger, xliii, pp. 513-529, with 7 figs. in the text.

1897 C

Untersuchungen über das Zahnsystem lebender und fossiler Halbaffen.

Festschrift zum 70sten Geburtstage von Carl Gegenbaur, III, pp. 127-166, with pl. I, and 20 figs. in the text.

Le Conte, John L.

1848 A

Notice of five new species of fossil *Mammalia* from Illinois.

Amer. Jour. Sci. (2), v, pp. 102-106, with 3 text figs.

1848 B

On *Platygonus compressus*; a new fossil pachyderm.

Mem. Amer. Acad. Arts and Sciences, III, pp. 257-274, with pls. I-IV.

1852 A

Notes on some suilline pachyderms from Illinois.

Proc. Acad. Nat. Sci. Phila., vi, pp. 3-6.

- Le Conte, John L.**—Continued. 1852 B
Notice of a fossil *Dicotyles* from Missouri.
Proc. Acad. Nat. Sci. Phila., vi, pp. 5-6.
Describes *D. costatus* LeC.
- 1852 C
[Remarks on *Castoroides ohioensis* from Shawneetown, Illinois.]
Proc. Acad. Nat. Sci. Phila., vi, p. 53.
- 1852 D
Remarks on some fossil pachyderms from Illinois.
Proc. Acad. Nat. Sci. Phila., vi, pp. 56-57.
- Le Conte, Joseph.** 1883 A
Carson footprints.
Nature, xxviii, pp. 101-102.
- Lee, W. T.** 1897 A
[A Mosasauroid from Colorado.]
Amer. Naturalist, xxxi, p. 614.
Said to belong probably to *Clidastes*; no specific name assigned and only a general description.
- Lefevre, Th.** 1889 A
Note préliminaire sur les restes de Siréniens recueillis en Belgique.
Zoolog. Anzeiger, xii, pp. 197-200.
- Leidy, Joseph.** 1847 A
On the fossil horse of America.
Proc. Acad. Nat. Sci. Phila., iii, pp. 262-266, pl. II.
Describes *Equus americanus*.
- 1847 B
On a new genus and species of fossil *Ruminantia*: *Poebrotherium wilsoni*.
Proc. Acad. Nat. Sci. Phila., iii, pp. 322-326.
- 1847 C
[Observations on *Equus americanus*.]
Proc. Acad. Nat. Sci. Phila., iii, p. 328.
- 1848 A
On a new genus and species of fossil *Ruminantia*: *Poebrotherium wilsoni*.
Amer. Jour. Sci. (2), v, pp. 276-279.
Extracted from Proc. Phil. Acad., Nov. 1847, p. 322. Reprinted in Ann. and Mag. Nat. Hist. (2) II, pp. 389-392.
- 1848 B
On a new fossil genus and species of ruminantoid *Pachydermata*: *Merycoidodon culbertsonii*.
Proc. Acad. Nat. Sci. Phila., iv, pp. 47-50, with 1 plate of 5 figs.
- 1849 A
Tapirus americanus fossilis.
Proc. Acad. Nat. Sci. Phila., iv, pp. 180-182.
- 1850 A
Observations on two new genera of fossil *Mammalia*, *Eucrotophus jacksoni*, and *Archæotherium mortoni*.
Proc. Acad. Nat. Sci. Phila., v, pp. 90-93.
- Leidy, Joseph**—Continued. 1850 B
Remarks on *Rhinoceros occidentalis*.
Proc. Acad. Nat. Sci. Phila., v, p. 119.
Contains no description.
- 1850 C
Descriptions of *Rhinoceros nebrascensis*, *Agriochærus antiquus*, *Palæotherium proutii*, and *P. bairdii*.
Proc. Acad. Nat. Sci. Phila., v, pp. 121-122.
- 1851 A
Remarks on *Palæotherium proutii*.
Proc. Acad. Nat. Sci. Phila., v, pp. 170-171.
- 1851 B
[Description of *Stylomys nebrascensis*.]
Proc. Acad. Nat. Sci. Phila., v, pp. 172-173.
- 1851 C
Descriptions of *Testudo lata* and *Emys hemispherica*.
Proc. Acad. Nat. Sci. Phila., v, p. 173.
- 1851 D
Descriptions of fossil ruminant ungulates from Nebraska.
Proc. Acad. Nat. Sci. Phila., v, pp. 237-239.
Describes *Oreodon priscum* and *Cotylops speciosa*.
- 1851 E
[Remarks on *Oreodon priscum* and *Rhinoceros occidentalis*.]
Proc. Acad. Nat. Sci. Phila., v, p. 276.
- 1851 F
[Descriptions of two fossil species of *Balsena*, *B. paleoatlantica* and *B. prisca*.]
Proc. Acad. Nat. Sci. Phila., v, pp. 308-309.
- 1851 G
[Descriptions of a number of fossil reptiles and mammals.]
Proc. Acad. Nat. Sci. Phila., v, pp. 325-328.
- 1851 H
[Descriptions of fossils from the Green-sand of New Jersey.]
Proc. Acad. Nat. Sci. Phila., v, pp. 329-330.
- 1851 I
[Remarks on *Aceratherium*.]
Proc. Acad. Nat. Sci. Phila., v, p. 331.
- 1851 J
[Description of the genus *Arctodon*.]
Proc. Acad. Nat. Sci. Phila., v, p. 278.
No specific name is indicated for the teeth described.
- 1851 K
Fossil bones from Big Bone Lick, Kentucky.
Proc. Acad. Nat. Sci. Phila., v, p. 140.
- 1852 A
[Description of a new rhinoceros from Nebraska, *R. americanus*.]
Proc. Acad. Nat. Sci. Phila., vi, p. 2.

Leidy, Joseph—Continued. 1852 B
[Descriptions of *Delphinus conradi*
and *Thoracosaurus grandis*.]
Proc. Acad. Nat. Sci. Phila., vi, p. 35.

— 1852 C
[Description of *Pontogeneus priscus*.]
Proc. Acad. Nat. Sci. Phila., vi, p. 52.

— 1852 D
[Description of *Emys culbertsoni*.]
Proc. Acad. Nat. Sci. Phila., vi, p. 34.

— 1852 E
[Remarks on fossil tortoises from
Nebraska.]
Proc. Acad. Nat. Sci. Phila., vi, p. 59.

— 1852 F
[Remarks on two crania of extinct
species of ox.]
Proc. Acad. Nat. Sci. Phila., vi, p. 71.

— 1852 G
[*Tapirus haysii* named.]
Proc. Acad. Nat. Sci. Phila., vi, p. 106.
Name given to tooth presented by Dr. Hays.

— 1852 H
[Remarks on fossil ox and on extinct
Edentata.]
Proc. Acad. Nat. Sci. Phila., vi, p. 117.

— 1852 I
[Remarks on *Tapirus haysii*.]
Proc. Acad. Nat. Sci. Phila., vi, p. 148.

— 1852 J
Description of the remains of extinct
Mammalia and *Chelonina* from Nebraska
Territory, collected during the geolog-
ical survey under the direction of Dr.
D. D. Owen.

David D. Owen's "Report of a geological sur-
vey of Wisconsin, Iowa, and Minnesota and
incidentally a portion of Nebraska Territory,"
pp. 534-572, pls. ix-xv.

— 1852 K
Description of a new species of croco-
dile from the Miocene of Virginia.
Jour. Acad. Nat. Sci. Phila. (2), ii, pp. 135-
138, pls. xvi.
Description of *Crocodylus antiquus* given.

— 1852 L
Report upon some fossil *Mammalia*
and *Chelonina* from Nebraska.
Sixth Annual Report Regents Smithsonian
Institution, for 1851, pp. 63-65.

— 1853 A
Memoir on the extinct species of
American ox.
Smithsonian Contributions to Knowledge,
v, art. 3, pp. 1-20, pls. 1-v.
This memoir is said to have been published
in Dec., 1852.

Leidy, Joseph—Continued. 1853 B
[Description of *Urus amplexans*.]
Proc. Acad. Nat. Sci. Phila., vi, p. 303.

— 1853 C
[Observations on extinct *Cetacea*.]
Proc. Acad. Nat. Sci. Phila., vi, pp. 377-378.

— 1853 D
[Remarks on a collection of fossil
Mammalia from Nebraska.]
Proc. Acad. Nat. Sci. Phila., vi, pp. 392-394.

— 1853 E
Remarks on several fossil teeth.
Proc. Acad. Nat. Sci. Phila., vi, p. 241.
This abstract of remarks contains as names
of new species, *Hipparion venustum*, *Oromys*
azopi, *Eubradys antiquus*, and *Ereplodon priscus*.
No descriptions accompany these names.

— 1853 F
Description of an extinct species of
American lion, *Felis atrox*.
Trans. Amer. Philos. Soc., x, pp. 319-321, pl.
xxxiv.

This species appears to be first mentioned,
without description, in Proc. Amer. Phil. Soc.,
v, 261, 1853.

— 1853 G
A memoir on the extinct *Dicotyles*
of America.
Trans. Amer. Philos. Soc., x, pp. 323-343, pls.
xxxv-xxxviii.

— 1854 A
The ancient fauna of Nebraska, or a
description of remains of extinct *Mam-*
malia and *Chelonina* from the Mauvais
Terres of Nebraska.
Smithsonian Contributions to Knowledge,
vi, art. vii, pp. 1-126, pls. i-xxiv.

— 1854 B
Remarks on extinct saurians from
Arkansas.
Proc. Acad. Nat. Sci. Phila., vii, p. 72, with
pl. ii.

— Describes *Brimosaurus grandis*.
— 1854 C
[Remarks on *Sus americanus*, or *Har-*
lanus americanus, and on other extinct
mammals.]

Proc. Acad. Nat. Sci. Phila., vii, pp. 89-90.
— 1854 D
Remarks on a new species of mam-
mal from Nebraska, *Dinictis felina*.
Proc. Acad. Nat. Sci. Phila., vii, p. 127.
Insufficient description.

— 1854 E
Synopsis of extinct *Mammalia*, the
remains of which have been discovered
in the Eocene formations of Nebraska.
Proc. Acad. Nat. Sci. Phila., vii, pp. 156-157.

Ledy, Joseph—Continued. 1854 F

Description of a fossil apparently indicating an extinct species of the camel tribe.

Proc. Acad. Nat. Sci. Phila., vii, pp. 172-178.
Describes *Camelops kansanus*.

1854 G

Remarks on the question of the identity of *Bootherium carifrons* with *Oribos moschatus* or *O. maximus*.

Proc. Acad. Nat. Sci. Phila., vii, pp. 209-210.

1854 H

On *Bathygnathus borealis*, an extinct saurian of the New Red sandstone of Prince Edward's Island.

Jour. Acad. Nat. Sci. Phila., (2), ii, pp. 327-330, pl. xxxiii.

1854 I

Notice of some fossil bones discovered by Mr. Francis A. Lincke, in the banks of the Ohio River, Indiana.

Proc. Acad. Nat. Sci. Phila., vii, pp. 199-201.

These bones were found below Evansville, Ind., and consisted of *Megalonyx jeffersonii*, *Bison americanus*, *Cervus virginianus*, *Equus americanus*, *Tapirus hayesi* and *Canis primævus*.

1855 A

On *Bathygnathus borealis*, an extinct saurian of the New Red sandstone of Prince Edward's Island.

Amer. Jour. Sci. (2), xix, pp. 444-446.

Extracted from the Jour. of the Acad. of Nat. Sci. Phila., vol. ii, and same as Ledy, J. 1854 H.

1855 B

A memoir on the extinct sloth tribe of North America.

Smithsonian Contributions to Knowledge, vii, art. v, pp. 1-68, pls. i-xvi.

1855 C

Indications of twelve species of fossil fishes.

Proc. Acad. Nat. Sci. Phila., vii, pp. 396-397.

1855 D

Indications of five species, with two new genera, of extinct fishes.

Proc. Acad. Nat. Sci. Phila., vii, p. 414.

1856 A

Description of two ichthyorhynchites.

Amer. Jour. Sci. (2), xxi, pp. 421-422.
From Proc. Acad. Nat. Sci. Phila., vol. viii,

p. 11.

1856 B

Notice of some remains of extinct *Mammalia*, recently discovered by Dr.

Ledy, Joseph—Continued.

F. V. Hayden in the Bad Lands of Nebraska.

Amer. Jour. Sci. (2), xxi, pp. 422-423.

From Proc. Phil. Acad., viii, p. 59; same as Ledy, 1856 D.

1856 C

Notices of remains of extinct reptiles and fishes discovered by Dr. F. V. Hayden in the Bad Lands of the Judith River, Nebraska Territory.

Amer. Jour. Sci. (2), xxi, pp. 118-120.

Extracted from Proc. Phil. Acad. See Ledy, 1856 F.

1856 D

Notice of some remains of extinct *Mammalia*, recently discovered by Dr. F. V. Hayden in the bad lands of Nebraska.

Proc. Acad. Nat. Sci. Phila., viii, p. 59.

Also in Amer. Jour. Sci. (2), xxi, p. 422.

1856 E

Description of two ichthyorhynchites.

Proc. Acad. Nat. Sci. Phila., viii, pp. 11-12.

Description of *Stenacanthus nitidus* and *Cyllindracanthus ornatus*.

1856 F

Notice of remains of extinct reptiles and fishes, discovered by Dr. F. V. Hayden in the Bad Lands of the Judith River, Nebraska Territory.

Proc. Acad. Nat. Sci. Phila., viii, pp. 72-73.

1856 G

Notice of the remains of a species of extinct seal, from the Post-pliocene deposit of the Ottawa River.

Proc. Acad. Nat. Sci. Phila., viii, pp. 90-91, with pl. iii.

Reprinted in Canadian Naturalist and Geologist, 1, p. 238, with pl., 1866.

1856 H

Notices of several genera of extinct *Mammalia*, previously less perfectly characterized.

Proc. Acad. Nat. Sci. Phila., viii, pp. 91-92.

1856 I

Notices of remains of extinct *Mammalia*, discovered by Dr. F. V. Hayden in Nebraska Territory.

Proc. Acad. Nat. Sci. Phila., viii, pp. 88-90.

1856 J

Notice of some remains of extinct vertebrated animals.

Proc. Acad. Nat. Sci. Phila., viii, pp. 163-166.

Leidy, Joseph—Continued 1856 K
 Notices of remains of extinct vertebrate animals of New Jersey, collected by Professor Cook, of the State geological survey, under the direction of Dr. W. Kittell.

Proc. Acad. Nat. Sci. Phila., viii, pp. 220-221.

1856 L
 Notices of extinct vertebrated animals discovered by Prof. E. Emmons.
 Proc. Acad. Nat. Sci. Phila., viii, pp. 255-256.
 See also Amer. Jour. Sci., xxiii, 1857, pp. 271-272.

1856 M
 Notice of some remains of fishes discovered by Dr. John E. Evans.
 Proc. Acad. Nat. Sci. Phila., viii, pp. 256-257.

1856 N
 Notice of remains of two species of seals.
 Proc. Acad. Nat. Sci. Phila., viii, p. 265.

1856 O
 Remarks on certain extinct species of fishes.
 Proc. Acad. Nat. Sci. Phila., viii, pp. 301-302.

1856 P
 Notices of remains of extinct turtles of New Jersey, collected by Professor Cook, of the State geological survey, under the direction of Dr. W. Kittell.
 Proc. Acad. Nat. Sci. Phila., viii, pp. 303-304.

1856 Q
 Notices of extinct *Vertebrata* discovered by Dr. F. V. Hayden, during the expedition to the Sioux country under the command of Lieut. G. K. Warren.
 Proc. Acad. Nat. Sci. Phila., viii, pp. 311-312.

1856 R
 [Remarks on extinct *Dicotylinae*.]
 Proc. Acad. Nat. Sci. Phila., 1856, p. 140.

1856 S
 Descriptions of some remains of fishes from the Carboniferous and Devonian formations of the United States.
 Jour. Acad. Nat. Sci. Phila. (2), iii, pp. 159-160.

1856 T
 Description of some remains of extinct *Mammalia*.
 Jour. Acad. Nat. Sci. Phila. (2), iii, pp. 166-171, pl. 17.
 Describes *Camelops kansanus*, *Canis primævus*, *Ursus amplidens*, *Procyon priscus* and *Ammodon myderi*.

Leidy, Joseph—Continued. 1857 A
 Notices of remains of extinct vertebrated animals discovered by Prof. E. Emmons.
 Amer. Jour. Sci. (2), xxiii, pp. 271-272.
 From Proc. Phila. Acad. Nat. Sci., viii, p. 255.

1857 B
 [Remarks on *Dromatherium*, *Clepsysaurus*, *Omosaurus*, etc.]
 Proc. Acad. Nat. Sci. Phila., ix, pp. 149-150.

1857 C
 List of extinct *Vertebrata*, the remains of which have been discovered in the region of the Missouri River, with remarks on their geological age.
 Proc. Acad. Nat. Sci. Phila., ix, pp. 89-91.

1857 D
 Rectification of the references of certain of the extinct mammalian genera of Nebraska.
 Proc. Acad. Nat. Sci. Phila., ix, pp. 175-176.

1857 E
 [Remarks on *Mosasaurus*.]
 Proc. Acad. Nat. Sci. Phila., ix, p. 176.

1857 F
 Notices of some remains of extinct fishes.
 Proc. Acad. Nat. Sci. Phila., 1857, pp. 167-168.

1857 G
 Notice of remains of the walrus discovered on the coast of the United States.
 Trans. Amer. Philos. Soc., xi, pp. 83-86, with pl. 4, figs. 1, 2, and pl. 5, fig. 1.

1857 H
 Descriptions of the remains of fishes from the Carboniferous limestone of Illinois and Missouri.
 Trans. Amer. Philos. Soc. xi, pp. 87-90, pl. 5, figs. 2-29.

1857 I
 Remarks on *Sauropscephalus* and its allies.
 Trans. Amer. Philos. Soc., xi, pp. 91-95, with pl. vi, figs. 8-15.

1857 J
 Observations on the extinct peccary of North America; being a sequel to "A memoir on the extinct *Dicotylinae* of America."
 Trans. Amer. Philos. Soc., xi, pp. 97-105, with pl. vi, figs. 2-7.

Leidy, Joseph—Continued. 1857 K
Remarks on the structure of the feet
of *Megalonyx*.

Trans. Amer. Philos. Soc., xi, pp. 107-108, pl.
vi, fig. 1.

1858 A
[Remarks concerning *Hadrosaurus*.]

Proc. Acad. Nat. Sci. Phila., 1858, pp. 215-
218.

1858 B
[Descriptions of *Mastodon mirificus*
and *Elephas imperator*.]

Proc. Acad. Nat. Sci. Phila., 1858, p. 10.

1858 C
[Notice of fossil *Mammalia* from val-
ley of Niobrara River.]

Proc. Acad. Nat. Sci. Phila., 1858, p. 11.

1858 D
[Remarks on "*Mastodon longirostris*"
and "*Tapirus mastodontoides*" of Har-
lan.]

Proc. Acad. Nat. Sci. Phila., 1858, p. 12.

1858 E
Notice of remains of extinct *Verte-
brata*, from the valley of the Niobrara
River, collected during the exploring
expedition of 1857, in Nebraska, under
the command of Lieut. G. K. Warren,
U. S. Top. Eng., by Dr. F. V. Hayden.

Proc. Acad. Nat. Sci. Phila., 1858, pp. 20-29.

1858 F
[Description of *Procamelus robustus*
and *P. gracilis*.]

Proc. Acad. Nat. Sci. Phila., 1858, p. 89.

1859 A
Hadrosaurus foulkii, a new saurian
from the Cretaceous of New Jersey, re-
lated to the Iguanodon.

Amer. Jour. Sci. (2), xxvii, pp. 266-270.
From Proc. Phil. Acad., 1858, p. 218.

1859 B
[Remarks on remains of some extinct
Vertebrata in Territory of Nebraska.]

Proc. Amer. Philos. Soc., vii, pp. 10-11.

1859 C
[Descriptions of *Xystracanthus arcua-
tus* and *Cladodus occidentalis*.']

Proc. Acad. Nat. Sci. Phila., 1859, p. 3.

1859 D
Synonymy of the American *Mosa-
saurus*.

Proc. Acad. Nat. Sci. Phila., 1859, pp. 91-92.
Preceded by remarks on mastodon found in
Honduras and on the genus *Mosasaurus*.

Leidy, Joseph—Continued. 1859 E
[Remarks on fossil vertebrates found
near Phoenixville, Pa., including new
genus and species, *Eurydorus serridens*.]

Proc. Acad. Nat. Sci. Phila., 1859, p. 110.

1859 F
[On the occurrence of *Ursus ameri-
canus* in association with bones of *Ma-
stodon*, *Megalonyx*, etc.]

Proc. Acad. Nat. Sci. Phila., 1859, p. 111.

1859 G
[Remarks on *Dromatherium sylvestre*
and *Ontocetus emmonsii*.]

Proc. Acad. Nat. Sci. Phila., 1859, p. 162.

1859 H
[Remarks on finding antler of rein-
deer at Sing Sing, N. Y.]

Proc. Acad. Nat. Sci. Phila., 1859, p. 194.

1859 I
Remarks on fossils from Bethany,
Va.; and also from the Green-sand,
Monmouth County, N. J.

Proc. Acad. Nat. Sci. Phila., xi, p. 110.

No descriptions are given and no species are
named.

1860 A
Extinct *Vertebrata* from the Judith
River and great Lignite formations of
Nebraska.

Trans. Amer. Philos. Soc., xi, pp. 139-154,
with pls. viii-xi.

1860 B
Description of vertebrate fossils.
Holmes's Post-pliocene Fossils of South
Carolina, pp. 99-122, with pls. xv-xxviii.

1860 C
Skull of extinct peccary.
Proc. Acad. Nat. Sci. Phila., 1860, p. 416.
This refers to the species found in Gibson
County, Ind., and afterwards called *Dicotyles*
nasutus.

1862 A
Observations upon the mammalian
remains found in the crevices of the
lead-bearing rocks at Galena, Ill.
J. D. Whitney's Report of a Geolog. Surv. of
the Upper Mississippi lead region, p. 423.

1865 A
Memoir on the extinct reptiles of the
Cretaceous formations of the United
States.

Smithsonian Contributions to Knowledge,
xiv, article vi, pp. 1-135, pls. 1-xx.

Reviewed in the Geol. Magazine, vol. v,
1868, p. 432.

- Leidy, Joseph—Continued.** 1865 B
[Descriptions of *Rhinoceros meridianus* and *R. hesperius*.]
Proc. Acad. Nat. Sci. Phila., 1865, pp. 176-177.
-
- 1865 C
Bones and teeth of horses from California and Oregon.
Proc. Acad. Nat. Sci. Phila., 1865, p. 94.
Describes *Equus occidentalis* Leidy.
-
- 1865 D
Brief review of a memoir on the Cretaceous reptiles of the United States, published in the fourteenth volume of the Smithsonian Contributions to Knowledge.
Annual Rep. Board Regents Smithsonian Inst. for 1864, pp. 66-73.
This is a review of the same author's memoir referred to in the title, Leidy, J. 1865 A.
-
- 1866 A
Drepanodon (Machairodus) occidentalis.
Proc. Acad. Nat. Sci. Phila., 1866, p. 345.
This carnivore from White River is named, but not described.
-
- 1866 B
Remarks on fossils presented.
Proc. Acad. Nat. Sci. Phila., xviii, p. 237.
Remarks on Harlan's *Scolopax* and on bird tibia from Nebraska.
-
- 1866 C
Remarks on a phalanx of an extinct reptile.
Proc. Acad. Nat. Sci. Phila., xviii, p. 9.
Reference made to a reptilian phalanx from Columbus, Miss. Description given, but no name. May belong to *Hadrosaurus*.
-
- 1867 A
[Remarks on a skull of *Bison antiquus* from California.]
Proc. Acad. Nat. Sci. Phila., 1867, p. 85.
-
- 1867 B
[Remarks on fossil skull of *Geomys bursarius*.]
Proc. Acad. Nat. Sci. Phila., 1867, p. 97.
-
- 1867 C
[Remarks on a skull of *Castoroides ohioensis*, found near Charleston, Ill.]
Proc. Acad. Nat. Sci. Phila., 1867, pp. 97-98.
-
- 1867 D
[Remarks on *Agriochærus latifrons*, *Hippopotamus*, and *Mastodon*.]
Proc. Acad. Nat. Sci. Phila., 1867, p. 32.
The name *Agriochærus latifrons* is given, but there is no description.
-
- Leidy, Joseph—Continued.** 1868 A
Notice of some vertebrate remains from Hardin County, Tex.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 174-176.
-
- 1868 B
Indications of an *Elothierium* in California.
Proc. Acad. Nat. Sci. Phila., 1868, p. 177.
Describes *Elothierium superbum*.
-
- 1868 C
Notice of some reptilian remains from Nevada.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 177-178.
-
- 1868 D
Notice of some remains of horses.
Proc. Acad. Nat. Sci. Phila., 1868, p. 196.
-
- 1868 E
Notice of some extinct cetaceans.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 196-197.
-
- 1868 F
Remarks on a jaw fragment of *Megalosaurus*.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 197-200.
-
- 1868 G
Remarks on *Conosaurus* of Gibbes.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 200-202.
-
- 1868 H
Notice of American species of *Ptychodus*.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 205-208.
-
- 1868 I
Notice of some remains of extinct pachyderms.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 230-233.
-
- 1868 J
Notice of some remains of extinct *Insectivora* from Dakota.
Proc. Acad. Nat. Sci. Phila., 1868, pp. 315-316.
-
- 1869 A
The extinct mammalian fauna of Dakota and Nebraska, including an account of some allied forms from other localities, together with a synopsis of the mammalian remains of North America.
Jour. Acad. Nat. Sci. Phila. (2), vii, pp. 1-472, with 30 plates.
A synopsis of this memoir was published in Jour. de Zoologie, i, 1872, pp. 187-191; 500-508, with pls. x-xi; ii, pp. 541-545. A list of the described genera and species is included.

- Leidy, Joseph—Continued.** 1869 B
Notice of some extinct vertebrates from Wyoming and Dakota.
Proc. Acad. Nat. Sci. Phila., 1869, pp. 63-67.
- 1870 A
On the *Elasmosaurus platyrus* of Cope.
Amer. Jour. Sci. (2), xlix, p. 392.
- 1870 B
On *Discoosaurus* and its allies.
Amer. Jour. Sci. (2), i, pp. 139-140.
Extracted from Proc. Phil. Acad., 1870, p. 18.
- 1870 C
[Abstract of remarks made on *Elasmosaurus* at meetings of Acad. Nat. Sci. Phila., Mar. 8 and Apr. 5, 1870.]
Nature, ii, p. 249.
- 1870 D
[Description of new genus and species, *Megacerops coloradensis*.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 1-2.
- 1870 E
[Remarks on *Poicilopleuron valens*, *Clidastes intermedius*, *Leiodon proriger*, *Baptemys wyomingensis*, and *Emys stevensianus*.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 3-5.
- 1870 F
[Remarks on *Myiodon ? robustus*, from Central America, and on *Dromatherium sylvestre*.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 8-9.
- 1870 G
[Remarks on *Elasmosaurus platyrus* and other fossil vertebrates.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 9-11.
- 1870 H
[Remarks on ichthyodorulites and on certain fossil *Mammalia*.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 12-13.
- 1870 I
Remarks on *Discoosaurus* and its allies.
Proc. Acad. Nat. Sci. Phila., 1870, pp. 18-22.
- 1870 J
[Remarks on fossil vertebrates.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 66-68.
- 1870 K
[Remarks on *Elephas americanus* and *Bos americanus* from Kansas and on new cyprinoid fishes from the Rocky Mountain region.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 69-71.
- 1870 L
[Remarks on jaw of *Oribos cavifrons*.]
Proc. Acad. Nat. Sci. Phila., 1870, p. 73.
- Leidy, Joseph—Continued.** 1870 M
[Remarks on *Mastodon americanus*, etc.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 96-99.
- 1870 N
[Description of *Crocodylus elliotti*.]
Proc. Acad. Nat. Sci. Phila., 1870, p. 100.
- 1870 O
[Remarks on a collection of fossils from the western Territories.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 109-110.
- 1870 P
[Remarks on a collection of fossils from Dalles City, Oreg.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 111-113.
- 1870 Q
[Descriptions of *Palaeosyops paludonius*, *Microsus cuspidatus*, and *Notharctos tenebrosus*.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 111-114.
- 1870 R
[Description of *Graphiodon vinearis* and remarks on *Crocodylus elliotti*.]
Proc. Acad. Nat. Sci. Phila., 1870, p. 122.
- 1870 S
[Descriptions of *Emys jeansi*, *E. haydeni*, *Baena arenosa*, and *Saniwa ensidens*.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 123-124.
- 1870 T
[Remarks on a collection of fossils from Table Mountain, Cal.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 125-127.
- 1870 U
[Description of *Nothosaurops occiduus*.]
Proc. Acad. Nat. Sci. Phila., 1870, p. 74.
- 1870 V
On fossil bones from Dakota and Nebraska.
Proc. Acad. Nat. Sci. Phila., 1870, pp. 65-66.
Describes a radius and tibia of some undetermined rhinoceros, and records finding of a bone probably belonging to *Elurodon ferox*.
- 1870 W
Remarks on Professor Owen's paper on fossil equines from Central and South America.
Proc. Acad. Nat. Sci. Phila., 1870, pp. 126-127.
Contains a list of species of *Protohippus*.
- 1871 A
Notes on the American mastodon and other fossils.
Amer. Jour. Sci. (3), i, pp. 63-65.
Extracted from Proc. Acad. Nat. Sci. Phila. 1870, pp. 96-99.

Ledy, Joseph—Continued. 1871 B
Remarks on fossil vertebrates from Wyoming.
Amer. Jour. Sci. (3), ii, pp. 372-373.
Extracted from Proc. Acad. Nat. Sci. Phila., Aug. 8, 1871.

1871 C
Report on the vertebrate fossils of the Tertiary formations of the West.
U. S. Geol. Surv. of Wyoming and portions of contiguous Territories, 2d (4th) annual report, F. V. Hayden, U. S. Geologist, pp. 340-370.

1871 D
[Remarks on a collection of fossils from California.]
Proc. Acad. Nat. Sci. Phila., 1871, p. 50.

1871 E
[Remarks on extinct turtles from Wyoming Territory, *Anosteira ornata* and *Hybomys arenarius*.]
Proc. Acad. Nat. Sci. Phila., 1871, pp. 102-103.

1871 F
[Remarks on *Mastodon* and *Equus* from N. Carolina, and on extinct mammals from Wyoming.]
Proc. Acad. Nat. Sci. Phila., 1871, pp. 118-116.

1871 G
[Remarks on remains of *Paleosynops*.]
Proc. Acad. Nat. Sci. Phila., 1871, p. 118.

1871 H
Remarks on a fossil *Testudo* from Wyoming and on supposed fossil turtle eggs.
Proc. Acad. Nat. Sci. Phila., 1871, pp. 154-155.

1871 I
Remarks on donation of fossils from Wyoming.
Proc. Acad. Nat. Sci. Phila., 1871, p. 197.

1871 J
Remarks on *Mastodon*, etc., of California; and note on *Anchitherium*.
Proc. Acad. Nat. Sci. Phila., 1871, pp. 198-199.

1871 K
Remarks on fossil vertebrates from Wyoming.
Proc. Acad. Nat. Sci. Phila., 1871, pp. 228-229.
See Amer. Naturalist, v, pp. 664-666.

1871 L
Notice of some extinct rodents.
Proc. Acad. Nat. Sci. Phila., 1871, pp. 230-232.

1871 M
Remarks on fossils from Oregon.
Proc. Acad. Nat. Sci. Phila., 1871, pp. 247-248.

Ledy, Joseph—Continued. 1872 A
On some new species of fossil *Mammalia* from Wyoming.
Amer. Jour. Sci. (3), iv, pp. 239-240.
From Proc. Acad. Nat. Sci. Phila. Same as Ledy, 1872 G.

1872 B
On the fossil vertebrates of the early Tertiary formation of Wyoming.
U. S. Geol. Surv. of Montana and portions of adjacent Territories; F. V. Hayden, U. S. Geologist, Washington, D. C., 1872, pp. 353-372.

1872 C
Remarks on fossils from Wyoming.
Proc. Acad. Nat. Sci. Phila., 1872, pp. 19-21.

1872 D
Remarks on some extinct mammals.
Proc. Acad. Nat. Sci. Phila., 1872, pp. 37-38.

1872 E
Remarks on some extinct vertebrates.
Proc. Acad. Nat. Sci. Phila., 1872, pp. 38-40.
Descriptions given of *Pelia angustus*, *Oligomys grandevus*, and *Tyloscutus ornatus*.

1872 F
Remarks on fossil shark teeth.
Proc. Acad. Nat. Sci. Phila., 1872, p. 166.

1872 G
On some new species of *Mammalia* from Wyoming.
Proc. Acad. Nat. Sci. Phila., 1872, pp. 167-163.

1872 H
Remarks on fossil mammals from Wyoming.
Proc. Acad. Nat. Sci. Phila., 1872, pp. 240-242.

1872 I
Notice of donation of fossils, etc., from Wyoming.
Proc. Acad. Nat. Sci. Phila., 1872, pp. 267-268.

1872 J
Remarks on fossils from Wyoming.
Proc. Acad. Nat. Sci. Phila., 1872, p. 277.
Remarks on *Paleosynops junior*, *Uinatayon edax*, *U. vorax*, *Chameleo pristinus*.

1872 K
Remarks on *Mastodon* from New Mexico.
Proc. Acad. Nat. Sci. Phila., 1872, p. 143.

1872 L
On a new genus of extinct turtles.
Proc. Acad. Nat. Sci. Phila., 1872, p. 162.
New genus *Chisternon* formed for *Bažna undata* Ledy.

1872 M
On some remains of Cretaceous fishes.
Proc. Acad. Nat. Sci. Phila., 1872, pp. 162-163.
Descriptions given of *Otodus dicaricatus*, *Oxyrhina extenta*, *Acrodus humilis*, and *Pycnodus faba*.

- Leidy, Joseph—Continued.** 1873 A
 Notice of fossil *Vertebrata* from the
 Miocene of Virginia.
 Amer. Jour. Sci. (3), v, pp. 311-312.
 Extract from Proc. Acad. Nat. Sci. Phila.,
 1872.

- 1873 B
 Contributions to the extinct verte-
 brate fauna of the Western Territories.
 Report of the U. S. Geological Survey of the
 Territories, F. V. Hayden, U. S. geologist in
 charge, 1, pp. 14-368; pls. 1-xxxvii. Washing-
 ton, 1873.

- 1873 C
 Notice of fossil vertebrates from the
 Miocene of Virginia.
 Proc. Acad. Nat. Sci. Phila., 1873, p. 15.

- 1873 D
 Notice of remains of fishes in the
 Bridger Tertiary formation of Wyom-
 ington.
 Proc. Acad. Nat. Sci. Phila., 1873, pp. 97-99.

- 1873 E
 Remarks on the occurrence of an ex-
 tinct hog in America.
 Proc. Acad. Nat. Sci. Phila., 1873, p. 207.

- 1873 F
 Remarks on extinct mammals from
 California.
 Proc. Acad. Nat. Sci. Phila., 1873, pp. 250-260.
 Describes *Peltis imperialis* and *Auchenia he-
 terna*.

- 1873 G
 Remarks on fossil elephant teeth.
 Proc. Acad. Nat. Sci. Phila., 1873, pp. 416-417.

- 1874 A
 [Remarks on *Thespesius* and *Ischy-
 rotherium*.]
 Proc. Acad. Nat. Sci. Phila., 1874, pp. 74-75.

- 1874 B
 Notice of remains of *Titanotherium*.
 Proc. Acad. Nat. Sci. Phila., 1874, pp. 165-166.

- 1874 C
 Remarks on fossils presented.
 Proc. Acad. Nat. Sci. Phila., 1874, pp. 223-224.

- 1875 A
 Remarks on elephant remains.
 Proc. Acad. Nat. Sci. Phila., 1875, p. 121.

- 1876 A
 Remarks on fossils from the Ashley
 phosphate beds.
 Proc. Acad. Nat. Sci. Phila., 1876, pp. 80-81.
 Abstract in Amer. Jour. Sci. (3), xii, 222-223.

- Leidy, Joseph—Continued.** 1876 B
 Fish remains of the Mesozoic red
 shales.
 Amer. Jour. Sci. (3), xii, p. 223.
 Extracted from Proc. Acad. Nat. Sci. Phila.,
 1876. Same as Leidy, 1876 D.

- 1876 C
 On *Petalodus*.
 Proc. Acad. Nat. Sci. Phila., 1876, p. 9.
 Form related to *P. linguifer* found apparently
 in Green-sand marl.

- 1876 D
 Fish remains of the Mesozoic red
 shales.
 Proc. Acad. Nat. Sci. Phila., 1876, p. 81.
 Reprinted in Amer. Jour. Sci., xii, p. 223.

- 1876 E
 Remarks on fossils of the Ashley
 phosphate beds.
 Proc. Acad. Nat. Sci. Phila., 1876, pp. 86-87.

- 1876 F
 Remarks on vertebrate fossils from
 the phosphate beds of South Carolina.
 Proc. Acad. Nat. Sci. Phila., 1876 pp. 114-115.

- 1877 A
 Description of vertebrate remains,
 chiefly from the phosphate beds of
 South Carolina.
 Jour. Acad. Nat. Sci. Phila. (2), viii, pp. 209-
 261, pls. xxx-xxxiv.

- 1879 A
 Fossil remains of a caribou.
 Proc. Acad. Nat. Sci. Phila., 1879, pp. 32-33.

- 1879 B
 Fossil foot tracks of the anthracite
 Coal-measures.
 Proc. Acad. Nat. Sci. Phila., 1879, pp. 164-165.

- 1880 A
 Bone caves of Pennsylvania.
 Proc. Acad. Nat. Sci. Phila., 1880, pp. 346-349.

- 1881 A
 Remarks on *Bathynathus borealis*.
 Jour. Acad. Nat. Sci. Phila. (2), viii, pp. 449-
 451.

- 1882 A
 On an extinct peccary.
 Proc. Acad. Nat. Sci. Phila., 1882, pp. 301-302.
 Describes *Platygonus vetus*.

- 1884 A
 Fossil bones from Louisiana.
 Proc. Acad. Nat. Sci. Phila., 1884, p. 22.

- 1884 B
 Vertebrate fossils from Florida.
 Proc. Acad. Nat. Sci. Phila., 1884, pp. 118-119

Leidy, Joseph—Continued. 1885 A
Rhinoceros and *Hippotherium* from Florida.

Proc. Acad. Nat. Sci. Phila., 1885, pp. 32-33.

1885 B

Remarks on *Mytodon*.

Proc. Acad. Nat. Sci. Phila., 1885, pp. 49-51, with 6 figs. in the text.

1886 A

An extinct boar from Florida.

Proc. Acad. Nat. Sci. Phila., 1886, pp. 37-38, with 2 figs. in the text.

1886 B

Mastodon and llama from Florida.

Proc. Acad. Nat. Sci. Phila., 1886, pp. 11-12.

A notice of this paper, together with a note by Professor Cope, is found in Amer. Naturalist, 1886, xx, p. 755.

1886 C

Caries in the mastodon.

Proc. Acad. Nat. Sci. Phila., 1886, p. 38.

1887 A

Fossil bones from Florida.

Proc. Acad. Nat. Sci. Phila., 1887, pp. 309-310.

1888 A

On a fossil of the puma.

Proc. Acad. Nat. Sci. Phila., 1888, pp. 9-10.

1888 B

Toxodon and other remains from Nicaragua, Central America.

Proc. Acad. Nat. Sci. Phila., 1888, pp. 275-277, with text figs.

1889 A

The saber-tooth tiger of Florida.

Proc. Acad. Nat. Sci. Phila., 1889, pp. 29-31.

Describes *Drepanodon floridanus*, and notes occurrence of *Auchenia minor*.

1889 B

Fossil vertebrates from Florida.

Proc. Acad. Nat. Sci. Phila., 1889, pp. 96-97.

1889 C

Notice of some fossil human bones.

Trans. Wagner Free Institute Sci., Phila., ii, pp. 9-12.

Contains a notice of the finding of some human bones in Florida, and also some bones of *Bison latifrons*.

1889 D

Description of mammalian remains from a rock crevice in Florida.

Trans. Wagner Free Institute Sci., Phila., ii, pp. 13-17, with pl. iii, figs. 1, 5-9.

1889 E

Description of vertebrate remains from Peace Creek, Florida.

Trans. Wagner Free Institute Sci., Phila., ii, pp. 19-31, with pls. i-v-viii.

Leidy, Joseph—Continued. 1889 F

Notice of some mammalian remains from the salt mine of Petite Anse, Louisiana.

Trans. Wagner Free Institute Sci., Phila., ii, pp. 33-40, with pl. v, figs. 1-4, and 9 figs. in the text.

1889 G

On *Platygonus*, an extinct genus allied to the peccaries.

Trans. Wagner Free Institute Sci., Phila., ii, pp. 41-50, with pl. viii, fig. 1.

1889 H

Notice and description of fossils in caves and crevices of the limestone rocks of Pennsylvania.

Ann. Report Geol. Surv. Penn. for 1887, pp. 1-20, with pla. 1, ii.

1890 A

Hippotherium and *Rhinoceros* from Florida.

Proc. Acad. Nat. Sci. Phila., 1890, pp. 182-183, with 1 fig. in the text.

1890 B

Mastodon and capybara of South Carolina.

Proc. Acad. Nat. Sci. Phila., 1890, pp. 184-185.

1890 C

Fossil vertebrates from Florida.

Proc. Acad. Nat. Sci. Phila., 1890, pp. 64-65.

1892 A

[List of *Vertebrata* from the Pliocene beds of Florida.]

Bull. U. S. Geol. Surv., No. 84 (Correlation papers: Neocene), pp. 129-130.

Leidy, Joseph, and Lucas, Fred. A.

1896 A

Fossil vertebrates from the Alachua clays of Florida; by Joseph Leidy, M. D., LL. D.; edited by Frederic A. Lucas.

Trans. Wagner Free Institute Sci., Phila., iv, pp. vii-xiv, 15-61, with pls. i-xix.

Lemoine, Victor.

1878 A

Recherches sur les ossements fossiles des terrains tertiaires inférieurs des environs de Reims. I. Étude du genre *Arctocyon*.

Annales Sci. Naturelles, Zool. (6), viii, pp. 1-56, pls. 1-4.

1880 A

Sur les ossements fossiles des terrains tertiaires inférieurs des environs de Reims.

Assoc. Française pour l'avancement des Sciences, 8^e session, Montpellier, 1879, pp. 585-594.

- Lemoine, Victor**—Continued. 1882 A
 Sur deux *Plagiulax* tertiaires, recueillis aux environs de Reims.
 Comptes rend. Acad. Sci. Paris, xcv, pp. 1009-1011.
- 1882 B
 Sur l'encéphale de l'*Arctocyon ducl-
 lli* et du *Pleuraspidotherium ausmonieri*,
 mammifères de l'Éocène inférieur des
 environs de Reims.
 Bull. Soc. Géol. France (3), x, pp. 328-333.
- 1883 A
 Étude sur le *Neoplagiulax* de la
 faune Éocène inférieur des environs de
 Reims.
 Bull. Soc. Géol. France (3), xi, pp. 249-271,
 with pls. v, vi.
- 1884 A
 Du Siméodosaur, reptile de la faune
 cernaysienne des environs de Reims.
 Comptes rend. Acad. Sci. Paris, xcvi, pp.
 697-699.
- 1884 B
 Sur les os de la tête et sur les diverses
 espèces du Siméodosaur, reptile de la
 faune cernaysienne des environs de
 Reims.
 Comptes rend. Acad. Sci. Paris, xcvi, pp.
 1011-1013.
- 1885 A
 Sur la présence du Siméodosaur dans
 les couches éocènes inférieures de
 Sézanne.
 Bull. Soc. Géol. France (3), xiv, pp. 21-32,
 pls. iii-v.
- 1885 B
 Sur les analogies et les différences du
 genre Siméodosaur, de la faune cer-
 naysienne des environs de Reims, avec
 le genre Champsoosaur d'Erquelines.
 Comptes rend. Acad. Sci. Paris, c, pp. 753-755.
- 1890 A
 Sur les rapports qui paraissent exister
 entre les mammifères crétacés d'Ameri-
 que et les mammifères de la faune cer-
 naysienne des environs de Reims.
 Comptes rend. Acad. Sci. Paris, cx, pp. 480-
 482.
 See also Bull. Soc. Géol. France (3), xviii,
 pp. 321-324, pl. iii.
- 1891 A
 Étude d'ensemble sur les dents des
 mammifères fossiles des environs de
 Reims.
 Bull. Soc. Géol. France (3), xix, pp. 263-
 290, with pls. x and xi.
- Lemoine, Victor**—Continued. 1893 A
 Étude sur les os du pied des mammi-
 fères de la faune cernaysienne et sur
 quelques pièces osseuses nouvelles de
 cet horizon paléontologique.
 Bull. Soc. Géol. France (3), xxi, pp. 353-368,
 pls. ix-xi.
- Lenk, H.**
 See Felix and Lenk.
- Lennox, T. H.** 1886 A
 The fossil sharks of the Devonian.
 Proc. Canadian Institute (3), iii, pp. 120-121.
 Makes statement of the finding of a fossil
 fin-spine, *Machæracanthus sulcatus*, at St. Marys,
 Ontario.
- Lepsius, G. R.** 1881 A
Halkitherium schinzi, die fossile Sirene
 des Mainzer Beckens. Eine ver-
 gleichend-anatomische Studie.
 Abhandl. mittelrhein. geol. Vereins, i, pp.
 i-vi; 1-200; i-viii, with pls. i-x.
 Contains numerous references to the litera-
 ture of the *Trichechidae*.
- Lesley, J. P.** 1889 A
 A dictionary of the fossils of Penn-
 sylvania and neighboring States named
 in reports and catalogues of the survey.
 Compiled for the convenience of the
 citizens of the State by J. P. Lesley,
 State geologist. 3,000 figures, mostly
 facsimile copies of those published by H.
 D. Rogers, Hall, Conrad, Vanuxem, Em-
 mons, Logan, Dawson, Billings, Mat-
 thews, Hitchcock, Newberry, Meek,
 Collett, Worthen, Rominger, D. D.
 Owen, Cox, Lyon, Safford, Fontaine,
 Lesquereux, Walcott, Leidy, Cope, and
 others; and some new species drawn
 and described by G. B. Simpson.
 Geol. Surv. of Pennsylvania, Report, P.,
 1889. Vol. i, pp. i-xiv; 1-437; with Errata, pp.
 i-xxxi, and list of publications, pp. 1-10. Vol.
 ii, pp. 439-914; with additions, corrections,
 synonyma, etc., pp. i-x.
- 1890 A
 [Same title as the preceding, of which
 it is the conclusion.]
 Pp. 915-1238, with critical emendations, ad-
 ditions, synonyma, etc., pp. i-xiv.
 The number of pages devoted to corrections
 of errors found in this work gives an indication
 of the unsatisfactory manner in which it has
 been compiled. The figures are usually poorly
 reproduced.
- 1892 A
 A summary description of the geolo-
 gy of Pennsylvania in three volumes,

Lesley, J. P.—Continued.

with a new geological map of the State, a map and list of bituminous mines, and many page plate illustrations. Vol. II, describing the Upper Silurian and Devonian formations. By J. P. Lesley, State geologist.

4to., pp. 1-xxv; 722-1628.

The figures are usually much reduced and poor. The plates do not follow the order of their numbers.

1895 A

[Same title as the preceding. Vol. III, part I, describing the Carboniferous formation.]

Pp. 1-xix; 1629-2153, with pls. ccv-cccxcv. Part III, describing the bituminous coal fields, E. V. d'Inville and the New Rod of Bucks and Montgomery counties. Benjamin Lyman. Pp. 1-xxiii; 2153-2638, with pls. cccxcvi-dcxi.

There being no descriptions in the above-mentioned work of the fossils figured, and many of the figures being very small and indistinct, not all are cited in this Catalogue.

Leuthardt, Franz. 1891 A

Ueber die Reduction der Fingerzahl bei Ungulaten.

Zoolog. Jahrbücher, System., v, pp. 98-146, with pls. 1-xxiii.

Levy, Hugo. 1898 A

Berträge zur Kenntniss des Baues und der Entwicklung der Zähne bei den Reptilien.

Jenaische Zeitschr. Naturwiss., xxxii (n. s. xxv), pp. 313-346, with pl. xi.

Contains numerous citations of the literature of the subject.

Lewis, J. L. 1880 A

Fossil remains in south west Missouri.

Kansas City Review of Science and Industry, iv, p. 207.

Mentions the finding of a tooth of a horse and a large tusk 30 feet below the surface, in Bates County, Mo.

Lewis, H. C. 1882 A

Evidences of the existence of pre-glacial man.

Proc. Acad. Nat. Sci. Phila., 1882, pp. 292-293.

Leydig, F. 1876 A

Über den Bau der Zehen bei Batrachiern und die Bedeutung des Fersenhöckers.

Morpholog. Jahrbuch, II, pp. 165-196, with pls. viii-xi.

Lindahl, Josua. 1892 A

Description of a skull of *Megalonyx leidy*, n. sp.

Trans. Amer. Philos. Soc., xvii, pp. 1-10, with pls. 1-3

Lindahl, Josua—Continued. 1897 A

Description of a Devonian ichthyodorous, *Heteracanthus uddeni*, n. sp., from Buffalo, Iowa.

Jour. Cincinnati Soc. Nat. Hist., xix, pp. 96-98, with pl. vi.

Lindström, G. 1895 A

On the remains of a *Cyathaspis* from the Silurian strata of Gotland.

Bihang k. Svenska Vet.-Akad. Handlingar, xxi, Afd. iv, No. 3, pp. 1-15, with pls. 1, II.

Describes and figures the microscopic structure of the shields and scales of *Cyathaspis*.

Lippincott, James S. 1881 A

An address to the fossil bones in a private museum.

Amer. Naturalist, vol. xv, p. 37.

Reply to J. S. L., p. 38.

Lister, George. 1846 A

Letter to Jeffries Wyman on Koch's *Hydrarchos*.

Proc. Boston Soc. Nat. Hist., ii, pp. 94-96.

Written from Washington County, Ala.

Lockwood, Samuel. 1883 A

A *Mastodon americanus* in a beaver meadow.

Proc. Amer. Assoc. Adv. Sci., 31st meeting, Montreal, 1882, pp. 365-366.

— 1886 A

The ancestry of *Nasua*.

Amer. Naturalist, xx, pp. 320-325.

Lönnberg, Einar. 1899 A

On some remains of "*Neomylodon listai*" Ameghino, brought home by the Swedish Expedition to Terra del Fuego, 1895-1897.

Svenska Exped. till Magellanal., II, No. 7, pp. 149-170, with pls. xii-xiv.

— 1900 A

On the structure and anatomy of the musk ox (*Ovibos moschatus*).

Proc. Zool. Soc. Lond., 1900, pp. 696-718, with 10 figs. in the text.

Logan, W. E. 1863 A

Superficial geology of Canada.

Geol. Surv. Canada, 1863, pp. 886-930.

Lohest, Maximin. 1884 A

Recherches sur les poissons des terrains paléozoïques de Belgique. Poissons de l'ampélite alunifère, des genres *Campodus*, *Petrodus*, et *Xystracanthus*.

Annales Soc. Géol. Belgique, xl, pp. 296-325, pls. III, IV.

— 1888 A

Recherches sur les poissons des terrains paléozoïques de Belgique. Pois-

Lohest, Maximin.—Continued.

sons des Psammites du Condroz, Famennien supérieur.

Annales Soc. Géol. Belgique, xv, pp. 112-208, pls. 1-xi.

1890 A

De la découverte d'espèces américaines de poissons fossiles dans le Dévonien supérieur de Belgique.

Annales Soc. Géol. Belgique, xvi, Bull. pp. liv-lx.

The finding of *Dinichthys pustulosus* and *D. terrilli* in Belgium is announced. The former name refers to *D. tuberculatus*, not to *D. pustulosus* Eastman.

Longhi, Prolo.

1899 A

Sopra i resti di un cranio di *Champsodelphis* fossile scoperto nella molassa miocenica del Bellunese.

Atti. Soc. Veneto-Trent. Sci. (2), iii, pp. 323-381, with pls. i-iii.

Treats of the genus *Champsodelphis*, with references to *Squalodon*.

Loomis, Frederic B.

1900 A

Die Anatomie und die Verwandtschaft der Ganoid-und Knochen-Fische aus der Kreide-Formation von Kansas, U. S. A.

Palaeontographica xlv, pp. 213-283, with pls. xix-xxvii, and 13 figs. in the text.

Lortet, L.

1892 A

Les reptiles fossiles du bassin du Rhone.

Arch. Mus. d'Hist. Nat. de Lyon, v, pp. 3-139, with pls. i-xii, and 10 figs. in the text.

In this extensive paper are described the genera *Idiochelys*, *Hydropelta*, *Eurysternum*, *Sauramodon*, *Homœosaurus*, *Eusoposaurus*, *Atoposaurus*, *Alligatorellus*, etc.

Lortet, Dr. L., and Chantre, E.

1879 A

Recherches sur les mastodontes et les faunes mammalogiques que les accompagnent.

Archives Muséum d'Histoire Naturelle de Lyon, ii, pp. 285-311, with pls. i-xvi.

Portion of "Études paléontologiques dans le bassin du Rhone."

Lucas, Frederick A.

1888 A

Great auk notes.

The Auk, v, pp. 278-283.

1890 A

The expedition to Funk Island, with observations upon the history and anatomy of the great auk.

Ann. Rep. Smith. Inst.; U. S. Nat. Mus., for 1888, pp. 493-529, with pls. lxxii, lxxiii.

Presents also a list of papers relating to the great auk.

Lucas, Frederick A.—Cont'd.

1892 A

On *Carcharodon mortoni* Gibbs.

Proc. Biolog. Soc. of Washington, vii, pp. 151-152.

Shows that *C. moutoni* is a synonym of *C. megalodon*.

1895 A

Skeletons of *Zeuglodon*.

Science (2), ii, pp. 42-43.

Refers to the finding of two skeletons by Mr. Chas. Schuchert, and makes some statements of facts about this animal.

1895 B

Notes on the osteology of *Zeuglodon cetoides*.

Amer. Naturalist, xxix, pp. 745-746.

1896 A

Contributions to the natural history of the Commander Islands. XI. The cranium of Pallas's cormorant.

Proc. U. S. Nat. Mus., xviii, pp. 717-719, with pls. xxxiv and xxxv.

Describes and figures the cranium of *Phalacrocorax perspicillatus*.

1897 A

Fossil bison of North America.

Science (2), vi, p. 814.

Abstract of remarks made before Biological Soc. Washington.

1898 A

Contributions to palaeontology. 1. A new crocodile from the Trias of southern Utah. 2. A new species of *Dinictis* (*D. major*).

Amer. Jour. Sci. (4), vi, p. 399.

The crocodile above described is *Heterodontosuchus ganei*.

1898 B

A new snake from the Eocene of Alabama.

Proc. U. S. Nat. Mus., xxi, pp. 637-638, with pls. xlv, xlvi.

This paper describes the new genus and species *Pterosphenus schucherti*.

1898 C

Publications of American Museum of Natural History.

Science (2), viii, pp. 96-97.

Contains a reference to figure of model of *Megalosaurus* (*Laelaps*) *aquilunguis*.

1898 D

The fossil bison of North America.

Science (2), viii, p. 678.

Abstract of remarks made before Biolog. Soc. Washington. New species *B. occidentalis* described.

- Lucas, Frederick A.**—Cont'd. 1899 A
The fossil bison of North America.
Proc. U. S. Nat. Mus., xxi, pp. 755-771, with pls. lxxv-lxxxiv and 2 text figs.
Reviewed by Dr. J. A. Allen in Amer. Naturalist, xxxiii, pp. 665-666.
- 1899 B
The characters of *Bison occidentalis*, the fossil bison of Kansas and Alaska.
Kansas Univ. Quart., viii, A, pp. 17-18, with pls. viii, ix.
- 1899 C
The nomenclature of the hyoid in birds.
Science (2), ix, pp. 323-324, with 1 fig.
- 1900 A
The truth about the mammoth.
McClure's Magazine, xiv, pp. 349-355, Feb., with 5 figs. in the text.
- 1900 B
Characters and relations of *Gallinuloides*, a fossil gallinaceous bird from the Green River shales of Wyoming.
Bull. Mus. Comp. Zool. (Harvard), xxxvi, pp. 79-84, with pl. i.
Describes *Gallinuloides wyomingensis* Eastman.
- 1900 C
Paleontological notes.
Science (2), xii, pp. 809-810.
Notes on *Thepesius*, and *Basilosaurus cetoides*.
- 1900 D
A new rhinoceros, *Trigonias osborni*, from the Miocene of South Dakota.
Proc. U. S. Nat. Mus., xxiii, pp. 221-223, with 2 figs. in the text.
- 1900 E
The pelvic girdle of *Zeuglodon*, *Basilosaurus cetoides* (Owen), with notes on other portions of the skeleton.
Proc. U. S. Nat. Mus., xxiii, pp. 327-331, with pls. v-vii.
- 1900 F
A new fossil cyprinoid, *Leuciscus turneri*, from the Miocene of Nevada.
Proc. U. S. Nat. Mus., xxiii, pp. 333-334, with pl. viii.
See also Leidy and Lucas; Stejneger and Lucas.
- Ludwig, Rudolph.** 1877 A
Fossile Crocodiliden aus der Tertiärformationen des Mainzer Beckens.
Paleontographica, Suppl., iii, Lief. 4, 5; pp. 1-64, with pls. i-xvi.
- Lütken, Chr.** 1868 A
On *Xenacanthus* (*Orthacanthus*) *dechenii* Goldfuss.
Geol. Magazine (1), v, pp. 376-380.
A review of various papers by Professor Kner.
- 1868 B
Professor Kner's Classification of the Ganoids.
Geol. Magazine (1), v, pp. 429-432.
- 1873 A
Ueber die Begrenzung und Eintheilung der Ganoïden.
Paleontographica, xxii, pp. 1-54.
- Lund, P. W.** 1839 A
Un aperçu des espèces de mammifères fossiles découvertes au Brésil.
Comptes rend. Acad. Sci. Paris, viii, pp. 570-577.
For a translation of this communication see Annals Nat. Hist. 1839, iii, pp. 210-213.
- 1839 B
Coup d'œil sur les espèces étiennes de mammifères du Brésil; extrait de quelques mémoires présentées à l'Académie royale des Sciences du Copenhague.
Annales Sci. Naturelles (2), xi, pp. 214-234.
For abstract see Neues Jahrb. Min., 1840, pp. 120-125.
- 1841 A
Blik paa Brasiliens Dyreverden for sidste Jordomvæltning.
K. Danske Vidensk. Selskabs Afhandl, viii, pp. 27-57; 61-66; 217-236, with pls. xiv-xxvii.
- 1842 A
Blik paa Brasiliens Dyreverden for sidste Jordomvæltning.
K. Danske Vidensk. Selskabs Afhandl, ix, pp. 137-208, with pls. xxviii-xxxviii.
See also Annales Sci. Naturelles, 1839 (2), xi, pp. 214-234.
- Lydekker, R.** 1880 A
Indian Tertiary and Post-tertiary Vertebrata. Siwalik and Narbada Proboscidea. Family i, *Dinotheridae*. Family ii, *Elephantidae*.
Paleont. Indica (10), i, pp. 182-294, with pls. xxix-xlvi.
- 1881 A
Indian Tertiary and Post-tertiary Vertebrata. Siwalik *Rhinocerotidae*.
Paleont. Indica (10), ii, pp. 1-62, with pls. i-x.
To this paper is appended a list of the principal works that have been published on the family of *Rhinocerotidae*.

Lydekker, R.—Continued. 1882 A
Indian Tertiary and Post-tertiary
Vertebrata. Siwalik and Narbada *Equi-*
dæ.

Palæont. Indica (10), ii, pp. 67-98, with pls.
xi-xv.

Appended is a list of the principal works
and memoirs on the osteology and palæontology
of *Equus* and *Hippotherium*.

1883 A
Indian Tertiary and Post-tertiary
Vertebrata. Siwalik selenodont *Suina*,
etc.

Palæont. Indica (10), ii, pp. 143-177, with
pls. xxiii-xxv.

Besides the descriptions of the Indian species,
there is a classification of the *Bunodontia* and
the *Selenodontia*, a list of the species of *Hyopo-*
tamus, and references to memoirs relating to
the *Anthracoheriidae*, *Oreodontidae*, etc.

1884 A
Indian Tertiary and Post-tertiary
Vertebrata. Siwalik and Narbada *Carni-*
voræ.

Palæont. Indica (10), ii, pp. 178-355, with pls.
xxvi-xlv.

Contains important discussions of the genera
of *Carnivora*, with lists of species, and refer-
ences to authorities.

1884 B
Indian Tertiary and Post-tertiary
Vertebrata. Additional Siwalik *Perisso-*
dactyla and *Proboscidea*.

Palæont. Indica (10), iii, pp. xi-xxiv; 1-34,
with pls. i-v.

Contains discussion of the teeth of ele-
phants and mastodons.

1884 C
Indian Tertiary and Post-tertiary
Vertebrata. Siwalik and Narbada bunod-
ont *Suina*.

Palæont. Indica (10), iii, pp. 35-104, with
pls. vi-xii.

Treats especially of the genera *Sus* and *Hyo-*
therium, and has appended a list of memoirs.

1885 A
Note on the zoological position of the
genus *Microchærus*, Wood, and its ap-
parent identity with *Hyopsodus*, Leidy.
Quart. Jour. Geol. Soc., xii, pp. 529-531,
with 1 woodcut.

1885 B
Catalogue of the fossil *Mammalia* in
the British Museum. Part I. Contain-
ing the orders *Primates*, *Chiroptera*,
Insectivora, *Carnivora*, and *Rodentia*.

Pp. i-xxx; 1-268, with 38 figs. in the text.
London, 1885.

Lydekker, R.—Continued. 1885 C
Catalogue of the fossil *Mammalia* in
the British Museum. Part II. Con-
taining the order *Ungulata*, suborder
Artiodactyla.

Pp. i-xxii; 1-324, with 39 figs. in the text.
London, 1885.

1885 D
Note on the generic identity of the
genus *Eathonyx*, Cope, with *Platycher-*
ops, Charlesworth (= *Miolophus*, Owen).
Geol. Magazine (3), ii, pp. 360-361.

1885 E
Memoirs on extinct North American
vertebrates, by Prof. E. D. Cope.
Geol. Magazine (3), ii, pp. 468-474.
A review of several of Professor Cope's papers.

1886 A
Catalogue of the fossil *Mammalia* in
the British Museum. Part III. Con-
taining the order *Ungulata*, suborders
Perissodactyla, *Toxodontia*, *Condylarthra*,
and *Amblypoda*.

Pp. i-xvi; 1-186, with 30 figs. in text. Lon-
don, 1886.

1886 B
Catalogue of the fossil *Mammalia* in
the British Museum. Part IV. Con-
taining the order *Ungulata*, suborder
Proboscidea.

Pp. i-xxiv; 1-235, with 32 figs. in the text.
London, 1886.

1886 C
M. Dollo on the evolution of the teeth
of herbivorous *Dinosauria*.
Geol. Magazine (3), iii, pp. 274-276, with
10 figs. in the text.

1886 D
Dr. Max Schlosser on the *Ungulata*.
Geol. Magazine (3), iii, pp. 326-328.
A review of Dr. Schlosser's paper in the
Morphologisches Jahrbuch, xii, pp. 1-136.

1886 E
Indian Tertiary and Post-tertiary
Vertebrata. Siwalik *Crocodylia*, *Lacer-*
tilia, and *Ophidia*.
Palæont. Indica (10), iii, pp. 209-240, with pls.
xxviii-xxxv.

1887 A
Catalogue of the fossil *Mammalia* in
the British Museum. Part V. Con-
taining the group *Tillodontia*, the orders
Sirenia, *Cetacea*, *Edentata*, *Marsupialia*,
Monotremata, and Supplement.
Pp. i-xxxv; 1-345, with 55 figs. in the text.
London, 1887.

Lydekker, R.—Continued. 1888 A

Note on a new Wealden Iguanodont and other dinosaurs.

Quart. Jour. Geol. Soc., xlv, pp. 46-61, with pl. iii and 3 figs. in the text.

1888 B

Catalogue of the fossil *Reptilia* and *Amphibia* in the British Museum. Part I. Containing the orders *Ornithosauria*, *Crocodylia*, *Dinosauria*, *Squamata*, *Rhynchocephalia*, and *Proterosauria*.

Pp. i-xxviii; 1-309, with 69 figs. in the text. London, 1888.

1888 C

Notes on Tertiary *Lacertilia* and *Ophidia*.

Geol. Magazine (3), v, pp. 110-113.

1888 D

Note on the classification of the *Ichthyopterygia*.

Geol. Magazine (3), v, pp. 309-314.

1888 E

British Museum Catalogue of fossil *Reptilia* and papers on the Enaliosaurians.

Geol. Magazine (3), v., pp. 451-453.

1889 A

On a skull of the chelonian genus *Lytoloma*.

Proc. Zool. Soc. Lond., 1889, pp. 60-66, with pls. vi-vii.

1889 B

On an apparently new species of *Hyracodontotherium*.

Proc. Zool. Soc. Lond., 1889, pp. 67-69, with 2 woodcuts.

Describes *H. Alhali*, from central France.

1889 C

On the remains and affinities of five genera of Mesozoic reptiles.

Quart. Jour. Geol. Soc., xlv, pp. 41-59, with 1 pl. and 9 text figs.

1889 D

On remains of Eocene and Mesozoic *Chelonina* and a tooth of (?) *Ornithopsis*.

Quart. Jour. Geol. Soc., xlv, pp. 227-246, with pl. viii and 7 woodcuts in the text.

1889 E

On certain chelonian remains from the Wealden and Purbeck.

Quart. Jour. Geol. Soc., xlv, pp. 511-518, with 4 figs. in the text.

1889 F

Catalogue of the fossil *Reptilia* and *Amphibia* in the British Museum. Part

Lydekker, R.—Continued.

II. Containing the orders *Ichthyopterygia* and *Sauropterygia*.

Pp. i-xxiii; 1-307, with 85 figs. in the text. London, 1889.

1889 G

Catalogue of the fossil *Reptilia* and *Amphibia* in the British Museum. Part

III. Containing the order *Chelonina*.

Pp. i-xviii; 1-239, with 53 figs. in the text. London, 1889.

1889 H

On a Cœluroid dinosaur from the Wealden.

Geol. Magazine (3), vi, pp. 119-121.

1889 I

On an ichthyosaurian paddle, showing the contour of the integuments.

The Geol. Magazine (3), vi, pp. 388-390, with 1 fig. in the text.

1889 J

[Remarks on Professor Seeley's paper on *Ornithopsis*.]

Quart. Jour. Geol. Soc., xlv., pp. 396-397.

Believes that *Cetiosaurus* should yield to *Cardiodon*, and *Ornithopsis* to *Hoplosaurus* (*Oplosaurus*) or even *Pelorosaurus*.

1889 K

Skeleton of *Phenacodus*.

Nature, xl, pp. 57-58, with 1 fig. in the text.

The figure is taken from Cope.

1889 L

Notes on new and other dinosaurian remains.

Geol. Magazine (3), vi, pp. 352-356, with text figs. A-D.

Contains figures and description of *Arctosaurus osborni* Adams.

1890 A

Catalogue of the fossil *Reptilia* and *Amphibia* in the British Museum. Part

IV. Containing the orders *Anomodontia*, *Ecaudata*, *Caudata*, and *Labyrinthodontia*; and supplement.

Pp. i-xxiii, 1-296, with 66 figs. in the text. London, 1890.

1890 B

On the remains of small sauropodous dinosaurs from the Wealden.

Quart. Jour. Geol. Soc. Lond., xlvi, pp. 182-184, with pl. ix and 1 text fig.

Regards the remains as belonging to *Pleurocoelus* Marsh.

1891 A

Catalogue of the fossil birds in the British Museum.

Pp. i-xxvii, 1-368, with 75 figs. London, 1891.

Lydekker, R.—Continued. 1891 B
Professor Osborn on the molars of the *Perissodactyla*.
Geol. Magazine (3), viii, pp. 317-321, with 3 figs. in the text; p. 384.

1891 C
On British fossil birds.
The Ibis (6), iii, pp. 381-410.

1892 A
On a remarkable sirenian jaw from the Oligocene of Italy, and its bearing on the evolution of the *Sirenia*.
Proc. Zool. Soc. Lond., 1892, pp. 77-83, with 2 woodcuts.

1892 B
Recent advances in knowledge of the ichthyosaurian reptiles.
Natural Science, 1, pp. 514-521, with 2 figs. in the text.

1893 A
On a mammalian incisor from the Wealden of Hastings.
Quart. Jour. Geol. Soc. Lond., xlix, pp. 281-283, with figs. 1, 1a, 2, 2a.

1893 B
Some recent restorations of dinosaurs.
Nature, xlviii, pp. 302-304, with 5 figs. in the text.
See, regarding this paper, O. C. Marsh, Nature, xlviii, p. 437.

1893 C
On zeuglodont and other cetacean remains from the Tertiary of the Caucasus.
Proc. Zool. Soc. Lond., 1892, pp. 558-564, with pls. xxxvi-xxxviii.

1893 D
Contributions to a knowledge of the fossil vertebrates of Argentina; i. The dinosaurs of Patagonia; II. Cetacean skulls from Patagonia; III. A study of extinct Argentine ungulates.
Anales del Museo de la Plata, ii, pp. 1-16, pls. i-v; pp. 1-13, pls. i-v; pp. 1-91, pls. i-xxxii.

1893 E
The restoration of extinct animals.
Natural Science, ii, pp. 135-143, with 2 text figs.
This is a review of H. N. Hutchinson's *Extinct Monsters*.

1894 A
Contributions to a knowledge of the fossil vertebrates of Argentina. Part

Lydekker, R.—Continued.
II. 1. Supplemental observations on Argentine ungulates. 2. The extinct edentates of Argentina. 3. On two extinct carnivores.

Anales del Museo de la Plata, iii, pp. i-vii; 1-118; 1-4; with pls. i, ii; i-lxi.

1896 A
[Articles in Newton's Dictionary of Birds, 1893-1896.]

1896 B
A geographical history of mammals.
8vo, pp. i-xli; 1-400, with 82 figs. in the text.

1898 A
The deer of all lands. A history of the family *Cervidae*, living and extinct.
4to, pp. i-xx; 1-329, with pls. i-xxiv and text figs. 1-80. London, 1898.

1898 B
Wild oxen, sheep, and goats of all lands, living and extinct.
London, 1898. 4to, pp. i-xv; 1-318, with pls. i-xxvii and 61 figs. in the text.

1900 A
The dental formula of the marsupial and placental *Carnivora*.
Proc. Zool. Soc. Lond., 1899, pp. 922-928, with pl. lxii.
See also Flower and Lydekker; Thomas and Lydekker.

Lyell, Charles. 1842 A
On the fossil footprints of birds and impressions of raindrops in the valley of the Connecticut.
Proc. Geol. Soc. Lond., iii, pp. 793-796.
No species described or figured.

1843 A
On the fossil footprints of birds and impressions of raindrops in the valley of the Connecticut.
Amer. Jour. Sci., xlv, pp. 394-397.

1843 B
On the geological position of the *Mastodon giganteum* and associated fossil remains at Bigbone Lick, Kentucky.
Ann. and Mag. Nat. Hist., xii, pp. 125-128.
See also Proc. Geol. Soc. Lond., iv, pp. 36-39, 1843; Amer. Jour. Sci., 1844, xlv, pp. 320-323.

1843 C
On the Tertiary strata of the island of Martha's Vineyard in Massachusetts.
Proc. Geol. Soc. Lond., iv, pp. 31-33.
Also in Amer. Jour. Sci. (2), xlv, pp. 318-320.

Lyell, Charles—Continued. 1845 A

On the Miocene Tertiary strata of Maryland, Virginia, and of North and South Carolina.

Quart. Jour. Geol. Soc. Lond., 1, pp. 413-429.

Refers to the occurrence of the remains of various species of sharks and of tooth of *Mastodon longirostris*.

1846 A

On the evidence of fossil footprints of a quadruped allied to *Cheirotherium* in the Coal strata of Pennsylvania.

Amer. Jour. Sci. (2), ii, pp. 25-29.

1846 B

On footmarks discovered in the Coal measures of Pennsylvania.

Quart. Jour. Geol. Soc. Lond., ii, pp. 417-420.
No species are named.

1846 C

On the newer deposits of the Southern States of North America.

Quart. Jour. Geol. Soc. Lond., ii, pp. 405-410.

Refers to the finding of *Zeuglodon* bones in Alabama.

1847 A

On the alleged coexistence of man and the megatherium.

Amer. Jour. Sci. (2), iii, pp. 267-269.

1847 B

On the structure and probable age of the coal field of the James River, near Richmond, Va.

Quart. Jour. Geol. Soc. Lond., iii, pp. 261-280, with pls. viii and ix.

1848 A

On the fossil footmarks of a reptile in the Coal formation of the Allegheny Mountains.

Athenæum, 1848, pp. 166-167.

1853 A

On the discovery of some fossil reptilian remains, and a land shell in the interior of an erect fossil tree in the Coal-measures of Nova Scotia, with remarks on the origin of coal fields, and the time required for their formation.

Amer. Jour. Sci. (2), xvi, pp. 33-41.

Taken from Proc. Royal Soc. of Great Britain, 1853.

Lyell, Chas., and Dawson, J. W. 1853 A

On the remains of a reptile (*Dendropteron acadianum*, Wyman and Owen), and of a land shell discovered in the interior of an erect fossil tree in the coal measures of Nova Scotia.

Quart. Jour. Geol. Soc. Lond., ix, pp. 58-63, with pls. ii-iv.

Maack, G. A. 1865 A

Palæontologische Untersuchungen über noch unbekannte Lophiodonfossilien von Heidenheim am Hahnenkamme in Mittelfranken nebst einer kritischen Betrachtung sämtlicher bis jetzt bekannten Species des Genus *Lophiodon*.

8vo, Leipzig, 1865, pp. 1-75, with pls. i-xiv.

1869 A

Die bis jetzt bekannten fossilen Schildkröten und die im oberen Jura bei Kelheim (Bayern) und Hannover neu aufgefundenen ältesten Arten derselben.

Palæontographica xviii, 193-338, pls. xxxiii-xi.

For review of this work and various corrections see Cope, E. D., 1870 T.

McAdams, William. 1884 A

A new vertebrate from the St. Louis limestone.

Proc. Amer. Assoc. Adv. Sci., 32d meeting, Minneapolis, 1883, p. 269.

Abstract; no generic or specific name.

McCallie, S. W. 1892 A

Remains of the mastodon recently found in Tennessee.

Science, xx, p. 338.

McCoy, Frederick. 1848 A

On some new fossil fish of the Carboniferous period.

Ann. and Mag. Nat. Hist. (2), ii, pp. 1-10; 115-134.

1848 B

Reply to Sir Philip Egerton's letter on the *Placodermi*.

Ann. and Mag. Nat. Hist. (2), ii, pp. 277-280.

1848 C

On some new ichthyolites from the Scotch Old Red sandstone.

Ann. and Mag. Nat. Hist. (2), ii, pp. 297-312, with text figs.

1853 A

On the structure of certain fossil fishes found in the Old Red sandstone of the north of Scotland.

Report Brit. Assoc. Adv. Sci., 22d meeting, Belfast, 1852, p. 55.

Discusses structure of *Holoptychius*.

1853 B

On the mode of succession of the teeth in *Cochliodus*.

Report Brit. Assoc. Adv. Sci., 22d meeting, Belfast, 1852, p. 55.

- McCoy, Frederick**—Continued. 1855 A
Description of the British palæozoic fossils in the Geological Museum of the University of Cambridge.
Pp. 1-661, with 26 pls., Cambridge, 1854.
The vertebrate fossils are described on pp. 575-644.
- McGee, W. J.** 1887 A
Oribos cavifrons from the Loess of Iowa.
Amer. Jour. Sci. (3), xxxiv, pp. 217-220.
- Mackie, S. J.** 1863 A
On a new species of *Hybodus* from the lower Chalk.
The Geologist, vi, pp. 241-246, pl. xiii.
Discusses the genus *Hybodus*.
- 1863 B
Cestraciont fishes of the Chalk.
The Geologist, vi, pp. 161-163, with pl. ix.
Contains list of species of *Ptychodus* in British Museum.
- Mackintosh, H. W.** 1878 A
Note on the microscopic structure of the scale of *Amia calva*.
Proc. Roy. Dublin Soc., i, pp. 93-95, with pls. i, ii.
- McMurrich, J. P.** 1884 A
On the osteology of *Amiurus catus* (L.) Gill.
Zoolog. Anzeiger, vii, pp. 296-299.
- 1884 B
The osteology of *Amiurus catus* (L.) Gill.
Proc. Canadian Institute, ii, pp. 270-310, with pl. ii.
- Madison (Bishop).** 1806 A
The Mammoth, or American elephant.
Med. and Phys. Jour., London, xv, p. 486.
Shows that this animal was herbivorous.
- Maggi, Leopoldo.** 1898 A
Placche osteodermiche interparietali degli Stegocefali e rispondenti centri di ossificazione interparietali dell' uomo.
Rendiconti Reale Istituto Lombardo Sci. e Lett. (2), xxxi, pp. 211-228, with pl. i.
- 1898 B
Omologie craniali fra Ittiosauri e feti dell' uomo e d'altri mammiferi. Ricerche e considerazioni relative all'ontogenia dei fossili.
Rendiconti Reale Istituto Lombardo Sci. e Lett. (2), xxxi, pp. 631-641, with pl. ii.
- 1898 C
Il canale cranio-faringeo negli ittiosauri omologo a quello dell' uomo e d'altri mammiferi.
Rendiconti Reale Istituto Lombardo Sci. e Lett. (2), xxxi, pp. 761-771, with pl. iii.
- Maggi, Leopoldo**—Continued. 1898 D
Le ossa sovraorbitali nei mammiferi.
Rendiconti Reale Istituto Lombardo Sci. e Lett. (2), xxxi, pp. 1089-1099, with pl. iv.
- 1898 E
Serie di ossicini del tegmen cranii in alcuni cani (*Canis*), e loro omologhi ed omotopi in alcuni Sturioni (*Acipenser*).
Rendiconti Reale Istituto Lombardo Sci. e Lett. (2), xxxi, pp. 1478-1492, with pl. v.
- Magnus, Hugo.** 1869 A
Physiologisch-anatomische Untersuchungen über das Brustbein der Vögel.
Archiv Anat., Physiol. u. wissenschaft. Med., 1868, pp. 682-710, with pls. xvi, xvii.
Issued in January, 1869.
- Major, C. J. Forsyth.** 1873 A
Nagerüberreste aus Böhmerzen Süddeutschlands und der Schweiz.
Palæontographica, xxii, 75-130, pls. iii-vi.
Contains remarks on dentition of various North American genera of mammals.
- 1877 A
Beiträge zur Geschichte der fossilen Pferde, insbesondere Italiens. Erster Theil.
Abhandl. schweizer. paläontolog. Gesellschaft, iv, pp. 1-16, with 4 pls.
- 1880 A
Beiträge zur Geschichte der fossilen Pferde, insbesondere Italiens. Zweiter Theil.
Abhandl. schweizer. paläontolog. Gesellschaft, vii, pp. 1-154, with 3 double plates.
This is the continuation and conclusion of Major, C. J. F., 1877 A.
- 1893 A
On some Miocene squirrels, with remarks on the dentition and classification of the *Sciurinae*.
Proc. Zool. Soc. Lond., 1893, pp. 179-215, with pls. viii-xi.
- 1899 A
On fossil and recent *Lagomorpha*.
Trans. Linn. Soc. Lond. (2), vii, pp. 438-520, with pls. xxxvi-xxxix.
- Malmgren, A. J.** 1864 A
Om tandbyggnaden hos Hvalrossen (*Odobenus rosmarus* L.) och tandombytet hos hans of ödda unge.
Overs. Vetensk.-Akad. Förhandl., xx, pp. 505-522, with pl. vii.
- 1865 A
Ueber den Zahnbau des Walrosses (*Odobenus rosmarus* L.) und über den Zahnbau seines ungeborenen Junges.
Archiv Naturgesch., xxxi, i, pp. 182-202.
Translation of Malmgren, 1864 A.

- Mandl, L.** 1839 A
Recherches sur la structure intime des écaillés des poissons.
Ann. Sci. Naturelles (2), Zool., xi, pp. 337-371, with pl. ix.
- Männer, H.** 1899 A
Beiträge zur Entwicklungsgeschichte der Wirbelsäule bei Reptilien.
Zeit.-chr. wissensch. Zool. lxvi, pp. 43-68, with pls. iv-vii.
- Mantell, G. A.** 1846 A
Description of footmarks and other imprints on a slab of New Red sandstone from Turners Falls, Mass., collected by Dr. James Deane, of Greenfield, United States.
Quart. Jour. Geol. Soc., ii, p. 38.
- 1848 A
On the structure of the jaws and teeth of the *Iguanodon*.
Philos. Trans. Roy. Soc. Lond., pp. 183-202, pls. 16-19.
- 1848 B
A brief notice of organic remains recently discovered in the Wealden formation.
Quart. Jour. Geol. Soc., v, pp. 37-43, with pl. iii.
Describes remains of *Iguanodon*.
- 1849 A
Additional observations on the osteology of the *Iguanodon* and *Hylæosaurus*.
Philos. Trans. Roy. Soc. Lond., pp. 271-305, pls. 26-32.
This paper includes "Notes on the vertebral column of the *Iguanodon*," by A. G. Melville.
- Marck, W. v.** 1863 A
Fossile Fische, Krebse und Pflanzen aus dem Plattenkalk der jüngsten Kreide in Westphalen.
Palæontographica, xi, pp. 1-88, with pls. i-xiv.
- Marcou, John B.** 1887 A
Review of the progress of North American palæontology for the year 1886.
Amer. Naturalist, xxi, pp. 532-544.
- 1888 A
Review of the progress of North American palæontology for the year 1887.
Amer. Naturalist, xxii, pp. 679-691.
- Marcou, Jules.** 1858 A
Geology of North America, with two reports on the prairies of Arkansas and Texas, the Rocky Mountains of New Mexico, and the Sierra Nevada of California, originally made for the United States Government.
Pp. i-vi, 1-144, with 7 pls. and 3 maps.
The original description of *Psychodus whipplei* occurs on page 83.
- Markert, F.** 1896 A
Die Flossenstacheln von *Acanthias*. Ein Beitrag zur Kenntniss der Hartsubstanzgebilde der Elasmobranchier.
Zool. Jahrbücher, Abth. Anat. u. Ontol., ix, pp. 664-722, with pls. xli-v-xlix and text-figs. A-K.
- Marsh, Dexter.** 1848 A
Fossil footprints.
Amer. Jour. Sci. (2) vi, pp. 272-274.
No species are named.
- Marsh, O. C.** 1862 A
On the saurian vertebræ from Nova Scotia.
Amer. Jour. Sci. (2), xxxiii, p. 278.
Eosaurus acadianus; name, but no description.
- 1862 B
Description of the remains of a new Enaliosaurian (*Eosaurus acadianus*) from the Coal formation of Nova Scotia.
Amer. Jour. Sci. (2), xxxiv, pp. 1-16, with pls. i, ii.
An abridgment of this description is found in Canadian Naturalist and Geologist, vol. vii, pp. 205-213.
- 1863 A
Description of the remains of a new Enaliosaurian (*Eosaurus acadianus*) from the Coal formation of Nova Scotia.
Quart. Jour. Geol. Soc., xix, pp. 52-56.
Abstract of Marsh, 1862 B.
- 1867 A
Discovery of additional *Mastodon* remains at Cohoes, N. Y.
Amer. Jour. Sci. (2), xliii, pp. 115-116.
- 1868 A
Notice of a new and diminutive species of fossil horse (*Equus parvulus*) from the Tertiary of Nebraska.
Amer. Jour. Sci. (2), xlii, pp. 374-375.
Reprinted in Ann. and Mag. Nat. Hist. (4), iii, pp. 95-96, 1869; Kosmos, Leipzig, iv, p. 346, 1869. Abstract in Neues Jahrb. Mineral., 1869, p. 767.
- 1869 A
Notice of new reptilian remains from the Cretaceous of Brazil.
Amer. Jour. Sci. (2), xlvii, pp. 390-392.
Contains notice of *Thecocampa squamensis*.
Reprinted in Ann. and Mag. Nat. Hist. (4), iii, pp. 442-444. Abstract in Neues Jahrb. Mineral., 1871, p. 112.

- Marsh, O. C.—Continued.** 1869 B
Notice of some new mosasauroid reptiles from the Green-sand of New Jersey.
Amer. Jour. Sci. (2), xlviii, pp. 392-397.
Abstract in Canadian Naturalist, iv, p. 331, and Geol. Magazine, vii, 1870, pp. 376-377.
-
- 1869 C
Description of a new and gigantic fossil serpent (*Dinophis grandis*) from the Tertiary of New Jersey.
Amer. Jour. Sci. (2), xlviii, pp. 397-400.
Extract of this paper published in Amer. Naturalist, vol. iv, p. 264.
-
- 1870 A
Notice of some fossil birds from the Cretaceous and Tertiary formations of the United States.
Amer. Jour. Sci. (2), xlix, pp. 205-217.
Abstracts in Geol. Magazine, vii, 1870, p. 318; Amer. Naturalist, iv, 1870, p. 310. Proc. Acad. Nat. Sci. Phila., xxii, 1870, pp. 5-6.
-
- 1870 B
Note on the remains of fossil birds.
Amer. Jour. Sci. (2), xlix, p. 272.
-
- 1870 C
Notice of a new species of gavial from the Eocene of New Jersey.
Amer. Jour. Sci. (2), i, pp. 97-99.
Reprinted in Geol. Magazine, vii, p. 427, 1870.
-
- 1870 D
Discovery of the Mauvaises Terres formation in Colorado.
Amer. Jour. Sci. (2), i, p. 292.
Reprinted in Canadian Naturalist, v, p. 240, 1871.
-
- 1870 E
Notice of some new Tertiary and Cretaceous fishes.
Proc. Amer. Assoc. Adv. Sci., 18th meeting, Salem, 1869, pp. 227-230.
Abstract describing briefly *Histiophorus parvulus*, *Embolorhynchus kinnei*, *Phyllodus elegans*, *P. curvidens*, *Myliobates bisulcus*, *Dipristis mcirei*, *Enchodus semistriatus*.
-
- 1870 F
[Remarks on *Hadrosaurus minor*, *Mosasaurus crassidens*, *Liodon laticaudus*, *Baptosaurus*, and *Rhinoceros matutinus*.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 2-3.
-
- 1870 G
[Remarks on *Laornis edwardsianus*, *Palaeotringa littoralis*, *P. vetus*, *Telmatornis priscus*, *T. affinis*, *Grus haydeni*, and *Puffinus conradii*.]
Proc. Acad. Nat. Sci. Phila., 1870, pp. 5-6.
Names, but no descriptions.

- Marsh, O. C.—Continued.** 1870 H
New fossil turkey.
Amer. Naturalist, iv, p. 317.
Notice of finding of *Meleagris altus*.
-
- 1870 I
Announcement of discovery of *Meleagris altus* and of *Dicotyles antiquus*.
Proc. Acad. Nat. Sci. Phila., 1870, p. 11.
No descriptions are furnished.
-
- 1871 A
Description of some new fossil serpents, from the Tertiary deposits of Wyoming.
Amer. Jour. Sci. (3), i, pp. 322-329.
-
- 1871 B
Notice of some new fossil reptiles from the Cretaceous and Tertiary formations.
Amer. Jour. Sci. (3), i, pp. 447-459.
Reprinted in Boll. R. Com. Geol. d'Italia, iii, pp. 278-283, 1872. See also Kosmos, vi, pp. 476-479; Pop. Sci. Rev., London, 1871, p. 436, and Neues Jahrb. Mineral, 1871, p. 890.
-
- 1871 C
Note on a new and gigantic species of pterodactyle.
Amer. Jour. Sci. (3), i, p. 472.
-
- 1871 D
Notice of some new fossil mammals from the Tertiary formation.
Am. Jour. Sci. (3), ii, pp. 35-44.
Reprinted in Boll. R. Com. Geol. d'Italia, iii, pp. 343-350, 1872.
-
- 1871 E
Notice of some new fossil mammals and birds from the Tertiary formations of the West.
Amer. Jour. Sci. (3), ii, pp. 120-127.
Reprinted in Boll. R. Com. Geol. d'Italia, iii, pp. 350-353, 1872.
-
- 1871 F
[Description of *Lophiodon validus*.]
Proc. Acad. Nat. Sci. Phila., 1871, p. 10.
-
- 1871 G
[Communication on some new reptiles and fishes from the Cretaceous and Tertiary.]
Proc. Acad. Nat. Sci. Phila., 1871, pp. 103-106.
-
- 1872 A
Discovery of a remarkable fossil bird.
Amer. Jour. Sci. (3), iii, pp. 56-57.
Abstract in Nature, v, p. 348, 1872.
First announcement of *Hesperornis regalis*.

- Marsh, O. C.—Continued.** 1872 B
Discovery of additional remains of *Pterosauria*, with descriptions of two new species.
Amer. Jour. Sci. (3), iii, pp. 241-248.
Abstract in Nature, v, p. 151, 1872.
- 1872 C
Discovery of the dermal scutes of mosasauroid reptiles.
Amer. Jour. Sci. (3), iii, pp. 290-292.
- 1872 D
Notice of a new species of *Hadrosaurus*.
Amer. Jour. Sci. (3), iii, p. 301.
Describes *H. agilis*.
- 1872 E
Preliminary description of *Hesperornis regalis*, with notices of four other new species of Cretaceous birds.
Amer. Jour. Sci. (3), iii, pp. 360-365.
Abstract in Nature, vi, pp. 90, 94. Reprinted in Ann. and Mag. Nat. Hist., (4), x, pp. 212-217; Boll. R. Com. Geol. d'Italia, iii, pp. 211-217, 1872.
- 1872 F
On the structure of the skull and limbs in mosasauroid reptiles, with descriptions of new genera and species.
Amer. Jour. Sci. (3), iii, pp. 448-464, with 4 pls.
See Kommos, vi, pp. 447-449; Jour. de Zoologie, ii, p. 533, for abstracts.
- 1872 G
Preliminary description of new Tertiary mammals. Pt. I.
Amer. Jour. Sci. (3), iv, pp. 122-128 and erratum on p. 504.
Abstract of this paper in Neues Jahrb. Mineral., 1872, pp. 990-991.
- 1872 H
Note on *Rhinosaurus*.
Amer. Jour. Sci. (3), iv, p. 147.
Rhinosaurus changed to *Tylosaurus*.
- 1872 I
Preliminary description of new Tertiary mammals. Parts II, III, and IV.
Amer. Jour. Sci. (3), iv, pp. 202-224.
Abstract in Neues Jahrb. Mineral., 1872, pp. 990-991. Advance copies of this paper are said to have been issued Aug. 7, 1872.
- 1872 J
Notice of some new Tertiary and post-Tertiary birds.
Amer. Jour. Sci. (3), iv, pp. 256-262.
- 1872 K
Preliminary description of new Tertiary reptiles. Parts I and II.
Amer. Jour. Sci. (3), iv, pp. 298-309.
- Marsh, O. C.—Continued.** 1872 L
Note on *Tinoceras anceps*.
Amer. Jour. Sci. (3), iv, p. 322.
Abstract in Pop. Sci. Rev., London, 1873, p. 94.
- 1872 M
Notice of a new species of *Tinoceras*.
Amer. Jour. Sci. (3), iv, p. 323.
- 1872 N
Discovery of fossil *Quadrumania* in the Eocene of Wyoming.
Amer. Jour. Sci. (3), iv, pp. 405-406.
See also Geol. Magazine, x, 1873, p. 38, and Amer. Naturalist, vii, pp. 179-180.
- 1872 O
Note on a new genus of carnivores, from the Tertiary of Wyoming.
Amer. Jour. Sci. (3), iv, p. 406.
Reprinted in Geol. Magazine, x, 1873, pp. 33-34.
Describes *Oreocyon latidens*.
- 1872 P
Notice of a new reptile from the Cretaceous.
Amer. Jour. Sci. (3), iv, p. 406.
This paper describes the jaws of *Colonosaurus mudgei* n. g. et n. sp., which were afterwards found to be the jaws of *Ichthyornis dispar*. The paper is noticed in Geol. Magazine, x, 1873, p. 34.
- 1872 Q
Notice of a new and remarkable fossil bird.
Amer. Jour. Sci. (3), iv, p. 344.
Reprinted in Amer. Naturalist, vii, p. 50, and Ann. and Mag. Nat. Hist. (4), xi, p. 80, 1873.
Describes *Ichthyornis dispar*.
- 1872 R
Notice of some remarkable fossil mammals.
Amer. Jour. Sci. (3), iv, pp. 343-344.
Describes *Dinoceras mirabilis* and *Dinoceras lacustris*.
- 1872 S
Discovery of new Rocky Mountain fossils.
Proc. Amer. Philos. Soc., xii, pp. 578-579.
Reprinted in Ann. Sci. Geol., Paris, iii, pp. 99-100.
- 1872 T
New and remarkable fossils.
Amer. Naturalist, vi, pp. 495-497.
Copied from the Yale Courant.
- 1873 A
Notice of a new species of *Ichthyornis*.
Amer. Jour. Sci. (3), v, p. 74.
Description of *Ichthyornis celer*. Abstracts in Nature, vii, p. 310, 1873; Jour. de Zoologie, ii, pp. 40-41.

- Marsh, O. C.—Continued.** 1873 B
On the gigantic fossil mammals of the order *Dinocerata*.
Amer. Jour. Sci. (3), v, pp. 117-122, with pls. i, ii.
Translated into French in Ann. Sci. Naturelles (5), Zool., xvii, art. 9, pl. 21.
Jour. de Zoologie, ii, pp. 160-168.
For republication, abstracts, etc., see Marsh, 1884 F, p. 227.
- 1873 C
On a new subclass of fossil birds (*Odontornithes*).
Amer. Jour. Sci. (3), v, pp. 161-162.
Reprinted in Amer. Naturalist, vii, pp. 115-117; Ann. and Mag. Nat. Hist. (4), xi, pp. 233-234.
Translated into French in Ann. Sci. Naturelles (5), Zool., xvii, art. 9, pp. 8-11. Noticed in Geol. Magazine, x (1873), p. 115. Remarks on by Troschel in Verhandl. naturh. Vereines preuss. Rheinlande, xxx, Sitzungsber., p. 83.
Announces discovery of teeth.
- 1873 D
Fossil birds from the Cretaceous of North America.
Amer. Jour. Sci. (3), v, pp. 229-230.
- 1873 E
Note on the dates of some of Professor Cope's recent papers.
Amer. Jour. Sci. (3), v, pp. 235-236.
Also Amer. Naturalist, vii, pp. 303-306.
- 1873 F
Additional observations on the *Dinocerata*.
Amer. Jour. Sci. (3), v, pp. 293-296.
- 1873 G
Supplementary note on the *Dinocerata*.
Amer. Jour. Sci. (3), v, pp. 310-311.
- 1873 H
Notice of new Tertiary mammals.
Amer. Jour. Sci. (3), v, pp. 407-410, 485-488.
Abstract in Nature, viii, p. 76, 1873.
- 1873 I
New observations on the *Dinocerata*.
Amer. Jour. Sci. (3), v, pp. 300-301.
- 1873 J
On the gigantic mammals of the American Eocene.
Proc. Amer. Philos. Soc., xiii, pp. 255-256.
- 1873 K
The fossil mammals of the order *Dinocerata*.
Amer. Naturalist, vii, pp. 146-153, with pls. i and ii.
Published in part in Amer. Jour. Sci. (3), v, pp. 117-122 (Marsh, O. C., 1873 B).

- Marsh, O. C.—Continued.** 1873 L
On the genus *Tinoceras* and its allies.
Amer. Naturalist, vii, pp. 217-218.
In reply to Prof. E. D. Cope, Amer. Naturalist, vii, pp. 157-160 (Cope, E. D., 1873 W).
- 1873 M
Tinoceras and its allies.
Amer. Naturalist, vii, pp. 306-308.
- 1873 N
On some of Professor Cope's recent investigations.
Amer. Naturalist, vii, pp. 51-52.
- 1873 O
Note on the dates of some of Professor Cope's recent papers.
Amer. Naturalist, vii, p. 178.
- 1873 P
Reply to Professor Cope's explanation.
Amer. Naturalist, vii, appendix to June number, pp. i-ix.
- 1874 A
On the structure and affinities of the *Brontotheriidae*.
Amer. Jour. Sci. (3), vii, pp. 81-86, with pls. i and ii.
Abstracts: Nature, ix, p. 227, 1874; Amer. Naturalist, vol. viii, pp. 79-85, 1874; Jour. de Zoologie, lii, pp. 61-62, 1874.
- 1874 B
Notice of new equine mammals from the Tertiary formation.
Amer. Jour. Sci. (3), vii, pp. 247-258, with 6 figs. in the text.
Reprinted in Ann. and Mag. Nat. Hist. (4), xliii, pp. 397-400. Abstract in Nature, ix, p. 390, 1874.
Contains discussion of origin of modern horse.
- 1874 C
Notice of new Tertiary mammals.
III.
Amer. Jour. Sci. (3), vii, pp. 531-534.
- 1874 D
Small size of the brain in Tertiary mammals.
Amer. Jour. Sci. (3), vii, pp. 66-67.
Reprints in Ann. and Mag. Nat. Hist., xiv, p. 167, Amer. Naturalist, viii, pp. 503-504, Jour. de Zoologie, lii, pp. 326-327. Abstract in Neues Jahrbuch Mineral., p. 772, 1874, and in Nature, x, p. 273.
- 1875 A
(An editorial note stating Professor Marsh's claim that Professor Cope's *Calamodon* is identical with Professor Marsh's *Stylinodon*.)
Amer. Jour. Sci. (3), ix, p. 151.

Marsh, O. C.—Continued.

1875 B

Notice of new Tertiary mammals. IV.

Amer. Jour. Sci. (3), ix, pp. 239-250.

A notice of this paper, containing a list of the forms described, may be found in Jour. de Zoologie, iv, 1876, pp. 98-99.

1875 C

New order of Eocene mammals.

Amer. Jour. Sci. (3), ix, p. 221.

Reprinted in Amer. Naturalist, ix, pp. 182-183; in Nature, xi, 1875, p. 368; in Ann. and Mag. Nat. Hist. (4), xv, p. 307; Jour. de Zoologie, iv, 1875, pp. 70-71; Pop. Sci. Rev., London, 1875, p. 207.

The new order proposed is denominated *Tylodontia*.

1875 D

On the *Odontornithes*, or birds with teeth.

Amer. Jour. Sci. (3), x, pp. 402-408, with pls. ix, x.

Reprinted in Geol. Magazine (2), iii, 1876, pp. 49-58, pl. ii; also in Jour. de Zoologie, iv, 1875, pp. 494-502, pl. xv.

1875 E

Odontornithes, or birds with teeth.

Amer. Naturalist, ix, pp. 624-631, with pls. ii, iii.

Same as the preceding paper.

1875 F

Mastodon of Otisville, Orange County, N. Y.

Amer. Jour. Sci. (3), ix, p. 483.

1876 A

Principal characters of the *Dinocerata*.

Amer. Jour. Sci. (3), xi, pp. 163-168, pls. ii-vi.

Reprinted in Jour. de Zoologie, v, pp. 136-145, pl. iv.

Abstracts, etc., Nature, xiii, p. 374, 1876; Zeitschr. gesamt. Naturwiss. xiv, pp. 31-32, 1876; Neues Jahrb. Mineral., pp. 780-781, 1876; Pop. Sci. Rev., London pp. 326-327, 1876.

1876 B

Principal characters of the *Tylodontia*.

Amer. Jour. Sci. (3), xi, pp. 249-252, with pls. viii and ix.

A translation of this paper appeared in Jour. de Zoologie, v, pp. 244-248, pl. xi. Abstract in Nature, xiii, p. 374.

1876 C

Principal characters of the *Brontotheriidae*.

Amer. Jour. Sci. (3), xi, pp. 335-340, pls. x-xiii and 2 figs. in text.

A translation of this paper appeared in Jour. de Zoologie, v, 1876, pp. 248-255; pl. xii. Abstract in Nature, xiv, p. 36.

Marsh, O. C.—Continued.

1876 D

On some characters of the genus *Coryphodon*.

Amer. Jour. Sci. (3), xi, pp. 425-428, with 1 page of figs.

Abstracts: Pop. Sci. Rev., London., 1876, p. 327; Nues Jahrb. Mineral., 1876, p. 781; Archiv. Sci. Phys. et Nat., Geneva, lvi, pp. 273, 274.

1876 E

Notice of a new sub-order of *Pterosauria*.

Amer. Jour. Sci. (3), xi, pp. 507-509.

Abstract in Ann. and Mag. Nat. Hist. (4), xviii, pp. 196-198; Jour. de Zoologie, v., pp. 457-458.

1876 F

Notice of new *Odontornithes*.

Amer. Jour. Sci. (3), xi, pp. 509-511.

Translated into French in Jour. de Zoologie, v., 1876, pp. 304-306.

1876 G

Recent discoveries of extinct animals.

Amer. Jour. Sci. (3), xii, pp. 59-61.

Same, Amer. Naturalist, x, pp. 436-439.

Abstract Neues Jahrb. Mineral., 1876, p. 782.

1876 H

Notice of new Tertiary mammals. V.

Amer. Jour. Sci. (3), xii, pp. 401-404.

Abstracts in Arch. Sci. Phys. et Nat., Geneva, xlix, pp. 127-128; Pop. Sci. Rev., London, 1877, pp. 97-98.

1876 I

Principal characters of American pterodactyls.

Amer. Jour. Sci. (3), xii, pp. 479-480.

1877 A

Characters of *Coryphodontidae*.

Amer. Jour. Sci. (3), xiv, pp. 81-85, with pl. iv.

Abstracts: Amer. Naturalist, xi, 1877, p. 500; Neues Jahrb. Mineral. 1877, p. 767. Reprint in Jour. de Zoologie, vi, 1877, pp. 380-385.

1877 B

Characters of the *Odontornithes*, with notice of a new allied genus.

Amer. Jour. Sci. (3), xiv, pp. 85-87, with pl. v.

Reprinted in Jour. de Zoologie, vi, pp. 386-389. *Baptornis advenus*, new genus and species, is described.

1877 C

Notice of a new and gigantic dinosaur.

Amer. Jour. Sci. (3), xiv, pp. 87-88.

Reprinted in Jour. de Zoologie, vi, pp. 248-250. *Titanosaurus montanus* described.

- Marsh, O. C.—Continued.** 1877 D
 New vertebrate fossils.
 Amer. Jour. Sci. (3), xiv, pp. 249-256.
 Notice of this paper occurs in Amer. Naturalist, xi, p. 629.
- 1877 E
 Introduction and succession of vertebrate life in America. Vice-president's address before Amer. Assoc. Adv. Science, 1877.
 Amer. Jour. Sci. (3), xiv, pp. 337-378.
 Proc. Amer. Assoc. Adv. Science, Nashville meeting, 1877, pp. 211-258; published 1878 (Marsh, 1878 G).
 For reprints, see Marsh, 1884 F, p. 234.
- 1877 F
 New order of extinct *Reptilia* (*Stegosauria*) from the Jurassic of the Rocky Mountains.
 Amer. Jour. Sci. (3), xiv, pp. 513-514.
- 1877 G
 Notice of new dinosaurian reptiles from the Jurassic formation.
 Amer. Jour. Sci. (3), xiv, pp. 514-516.
- 1877 H
 Brain of *Coryphodon*.
 Amer. Naturalist, xi, p. 375.
 A criticism on Professor Cope's paper in same journal, xi, p. 312.
- 1878 A
 New species of *Ceratodus*, from the Jurassic.
 Amer. Jour. Sci. (3), xv, p. 76.
 Describes *Ceratodus Güntheri*.
- 1878 B
 Notice of new dinosaurian reptiles.
 Amer. Jour. Sci. (3), xv, pp. 241-244, with 2 figs. in the text.
 Abstract in Pop. Sci. Rev., London, 1878, pp. 210-211.
- 1878 C
 Notice of new fossil reptiles.
 Amer. Jour. Sci. (3), xv, pp. 409-411.
- 1878 D
 Fossil mammal from the Jurassic of the Rocky Mountains.
 Amer. Jour. Sci. (3), xv, p. 459.
 Reprinted in Ann. and Mag. Nat. Hist. (5), vol. ii, p. 108; Pop. Sci. Rev., London, 1878, pp. 322-323.
 Describes *Dryolestes priscus* Marsh.
- 1878 E
 New pterodactyle from the Jurassic of the Rocky Mountains.
 Amer. Jour. Sci. (3), xvi, pp. 233-234.
 Abstracts in Neues Jahrb. Mineral., 1878, p. 895; Pop. Sci. Rev., London, 1878, p. 436.
 Describes *Pterodactylus montanus*.
- Marsh, O. C.—Continued.** 1878 F
 Principal characters of American Jurassic dinosaurs. Part I.
 Amer. Jour. Sci. (3), xvi, pp. 411-416, pls. iv-x.
 Abstract in Neues Jahrb. Mineral., 1880, pp. 256-257.
- 1878 G
 The introduction and succession of vertebrate life in America.
 Proc. Amer. Assoc. Adv. Science, 26th meeting, Nashville, 1877, pp. 211-258.
 Also Pop. Sci. Month., xli, pp. 518-527; 672-697.
 Vice-presidential address before Amer. Assoc. Adv. Sci., 1877. Same as Marsh, 1877 E, with footnotes.
- 1878 H
 Brain of a fossil mammal.
 Nature, xvii, p. 340.
 On the brain of *Coryphodon*.
- 1879 A
 A new order of extinct reptiles (*Sauranodonta*) from the Jurassic formation of the Rocky Mountains.
 Amer. Jour. Sci. (3), xvii, pp. 85-86.
 Abstract in Ann. and Mag. Nat. Hist. (5), iii, pp. 175-176; Pop. Sci. Rev., London, 1879, p. 206.
- 1879 B
 Principal characters of American Jurassic dinosaurs. Part II.
 Amer. Jour. Sci. (3), xvii, 86-92, with pls. iii-x.
 Abstract in Neues Jahrb. Mineral., 1880, pp. 257-258.
- 1879 C
 The vertebræ of recent birds.
 Amer. Jour. Sci. (3), xvii, 266-269, with 5 figs. in text.
- 1879 D
 Polydactyle horses, recent and extinct.
 Amer. Jour. Sci. (3), xvii, 499-506, with text figures.
 Reprinted in Kosmos, v, pp. 432-438. Abstracts in Pop. Sci. Rev., London, 1879, pp. 318-319; Neues Jahrb. Mineral., 1881, pp. 103-104.
- 1879 E
 Notice of a new Jurassic mammal.
 Amer. Jour. Sci. (3), xviii, pp. 60-61.
 Reprinted in Ann. and Mag. Nat. Hist. (5), iv, pp. 167-168; Geol. Magazine (2), vi, pp. 371-372.
 Describes new genus *Stylacodon*, with new species *S. gracilis*. New family *Stylodontidae* proposed.

- Marsh, O. C.—Continued.** 1879 F
Additional remains of Jurassic mammals.
Amer. Jour. Sci. (3), xviii, 215-216, with 1 fig. in text.
Abstract in Pop. Sci. Rev., Lond., 1879, p. 428.
- 1879 G
Notice of new Jurassic mammals.
Amer. Jour. Sci. (3), pp. xviii, 396-398, with 1 fig. in text.
- 1879 H
Notice of new Jurassic reptiles.
Amer. Jour. Sci. (3), xviii, pp. 501-505, with pl. iii and 1 text fig.
- 1879 I
History and methods of paleontological discovery.
Amer. Jour. Sci. (3), xviii, pp. 323-359.
Reprinted in Nature, xx, pp. 494-499; 515-521. Kosmos, vi, pp. 339-352, 425-445, 1880; Proc. Amer. Assoc. Adv. Sci., xxviii, pp. 1-42, Salem, 1880; Pop. Sci. Month., xvi, pp. 219-236; 363-380.
- 1880 A
New characters of mosasauroid reptiles.
Amer. Jour. Sci. (3), xix, pp. 83-87, with pl. i and 4 figs. in text.
Abstract in Neues Jahrb. Mineral., 1880, pp. 104-105.
- 1880 B
The limbs of *Sauranodon*, with notice of a new species.
Amer. Jour. Sci. (3), xix, pp. 169-171, with 1 fig. in text.
For notice of this paper, by C. G. Giebel, see Zeitschr. gesamt. Naturwiss. (3), v, p. 357, 1880; Abstracts in Kosmos, vii, pp. 74-77; Neues Jahrb. Mineral., 1880, pp. 105-106.
- 1880 C
Principal characters of American Jurassic dinosaurs. Part III.
Amer. Jour. Sci. (3), xix, pp. 253-259, with pls. vi-xi.
Abstract in Neues Jahrb. Mineral., 1880, pp. 106-107.
- 1880 D
The sternum in dinosaurian reptiles.
Amer. Jour. Sci. (3), xix, pp. 395-396, with pl. xviii.
For synopses of this paper, see Kosmos, vii, p. 317; Neues Jahrb. Mineral., 1881, pp. 104-105.
- 1880 E
Note on *Sauranodon*.
Amer. Jour. Sci. (3), xix, p. 491.
Notes change of name to *Baptanodon*.

- Marsh, O. C.—Continued.** 1880 F
Notice of Jurassic mammals representing two new orders.
Amer. Jour. Sci. (3), xx, pp. 235-239, with 1 fig. in the text.
Abstract in Arch. Sci. Phys. et Nat., Geneva, 1880, iv, pp. 420-422.
- 1880 G
Odontornithes: A monograph on the extinct toothed birds of North America, with 34 plates and 40 woodcuts.
Report of the geological exploration of the 40th parallel, by Clarence King; pp. i-xv: 1-201. Washington, 1880.
For abstracts, see Marsh, O. C., 1898 D. p. 26.
- 1880 H
List of genera established by Prof. O. C. Marsh, 1862-1879.
Pp. 1-12. No date, but probably issued near beginning of year 1880. For continuation of the list, see Marsh, O. C., 1889 I.
- 1881 A
Principal characters of American Jurassic dinosaurs. Part IV. Spinal cord, pelvis, and limbs of *Segosaurus*.
Amer. Jour. Sci. (3), xxi, pp. 167-170, with pls. vi-viii.
See also Kosmos, ix, pp. 319-321; Neues Jahrb. Mineral., 1881, pp. 109-110, 270-271.
- 1881 B
New order of extinct Jurassic reptiles (*Caeluria*).
Amer. Jour. Sci. (3), xxi, pp. 339-340, with pl. x.
Reprinted in Kosmos, ix, pp. 464-465.
- 1881 C
Discovery of a fossil bird in the Jurassic of Wyoming.
Amer. Jour. Sci. (3), xxi, pp. 341-342.
Reprinted in Ann. and Mag. Nat. Hist. (6), vii, 1881, pp. 488-489.
Describes *Laopteryx priscus* Marsh.
- 1881 D
Note on American pterodactyls.
Amer. Jour. Sci. (3), xxi, pp. 342-343.
Abstract in Neues Jahrb. Mineral., 1881, p. 415.
- 1881 E
Principal characters of American Jurassic dinosaurs. Part V.
Amer. Jour. Sci. (3), xxi, pp. 417-423; pls. xii-xviii, with 7 plates.
- 1881 F
New Jurassic mammals.
Amer. Jour. Sci. (3), xxi, pp. 511-513.

Marsh, O. C.—Continued. 1881 G
Restoration of Dinoceras mirabile.
 Amer. Jour. Sci. (3), xxii, pp. 31-32, with
 pl. ii.
 Abstract in Archiv. Sci. Phys. et Nat., Geneva,
 vi, 1881, pp. 323-324.

1881 H
Jurassic birds and their allies.
 Amer. Jour. Sci. (3), xxii, pp. 337-340.
 Reprinted in Pop. Sci. Month., xx, pp. 312-
 315; Science (1), ii, pp. 512-513; Geol. Magazine
 (2), viii, pp. 485-487; Nature, xxv, pp. 22-23;
 Kosmos, x, pp. 231-234; Ann. and Mag. Nat.
 Hist. (5), viii, pp. 451-455.

1882 A
Classification of the Dinosauria.
 Amer. Jour. Sci. (3), xxiii, pp. 81-86.
 Read before the National Acad. Sci., Nov.
 14, 1881.
 Reprinted in Kosmos, v, pp. 382-387;
 Geol. Magazine (2), ix, pp. 80-85; Ann. and
 Mag. Nat. Hist. (5), ix, pp. 79-84; Nature, xxv,
 pp. 244-246.

1882 B
The wings of pterodactyles.
 Amer. Jour. Sci. (3), xxiii, pp. 251-256, with
 pl. iii.
 See also Geol. Magazine (2), ix, pp. 205-210;
 Kosmos, vi, pp. 103-106; and Nature, xxv, pp.
 531-533.
 Describes *Rhamphorhynchus phyllurus* Marsh.

1882 C
Jurassic birds and their allies.
 Report Brit. Assoc. Adv. Sci., 51st meeting,
 York, 1881, pp. 661-662.
 Same as Marsh, O. C., 1881 H.

1883 A
*Principal characters of American
 Jurassic dinosaurs. Part VI. Restora-
 tion of Brontosaurus.*
 Amer. Jour. Sci., (3), xxvi, pp. 81-85, with
 pl. i.
 See also Geol. Magazine for 1883, pp. 386-388.

1883 B
*On the supposed human footprints
 recently found in Nevada.*
 Amer. Jour. Sci. (3), xxvi, pp. 139-140, with
 2 figs. in the text.
 Abstract in Nature, xxviii, pp. 870-871;
 Neues Jahrb. Mineral., 1884, pp. 262-268.

1883 C
Birds with teeth.
 Third annual report of the U. S. Geol. Surv.
 to the Secretary of the Interior, 1881-82, by J.
 W. Powell, director, Washington, 1883, pp. 45-
 88, with 33 figs. in the text.

Marsh, O. C.—Continued. 1884 A
*Principal characters of American
 Jurassic dinosaurs. Part VII. On the
 Diplodocidae, a new family of the Sau-
 ropoda.*

Amer. Jour. Sci. (3), xxvii, pp. 160-168, with
 pls. iii and iv.
 Abstract with 3 figures in Science, iii, p. 199;
 Kosmos, ii, pp. 350-357. Notice by Cope, Amer.
 Naturalist, xix, p. 67. Reproduced in Geol.
 Magazine (2), x, pp. 99-107, with 10 figs. in the
 text.

1884 B
*Principal characters of American
 Jurassic dinosaurs. Part VIII. The
 order of Theropoda.*
 Amer. Jour. Sci. (3), xxvii, pp. 329-340, with
 pls. viii-xiv.
 Abstract with figures in Science, iii, pp. 542-
 544; Kosmos, ii, pp. 357-365. Reprinted in Geol.
 Magazine (3), i, pp. 252-282. Notice by Cope in
 Amer. Naturalist, xix, p. 67.

1884 C
*A new order of extinct Jurassic rep-
 tiles.*
 Amer. Jour. Sci. (3), xxvii, p. 341, with 1
 text fig.

1884 D
*Principal characters of American
 Cretaceous pterodactyla. Part I. The
 skull of Pteranodon.*
 Amer. Jour. Sci. (3), xxvii, pp. 422-426, with
 pl. xv.
 Reprinted in Geol. Magazine (3), i, pp. 345-
 348.

1884 E
*On the united metatarsal bones of
 Cerasosaurus.*
 Amer. Jour. Sci. (3), xxviii, pp. 161-162,
 with 2 figs. in the text.

1884 F
*Dinocerata. A monograph of an
 extinct order of gigantic mammals.*
 Monographs U. S. Geol. Surv., x, pp. i-xviii;
 1-237, with 56 pls. and 200 woodcuts in text.
 Washington, D. C.
 Reviewed in Geol. Magazine, (3), ii, 1885,
 pp. 212-228, with many figures reproduced.
 Abstracts in Amer. Jour. Sci. (3), xxix, pp.
 173-204; Geol. Magazine (3), ii, pp. 212-228; Na-
 ture, xxxii, pp. 97-99; Pop. Sci. Month., xxviii,
 pp. 133-134; Neues Jahrb. Mineral., 1886, i, pp.
 339-341; Ann. Sci. Géol., Paris, xvii, pp. 1-11.

1884 G
*The classification and affinities of
 the dinosaurian reptiles.*
 Nature, xxxi, pp. 68-69.
 Abstract in Science, iv, p. 261.
 Read before Brit. Assoc. Adv. Sci., Montreal
 meeting, 1884.

- Marsh, O. C.—Continued.** 1885 A
Names of extinct reptiles.
Amer. Jour. Sci. (3), xxix, p. 169.
- 1885 B
The gigantic mammals of the order
Dinocerata.
Fifth Annual Report of the U. S. Geol.
Surv., Washington, D. C., 1885, pp. 243-302, with
100 figs. in the text.
- 1885 C
On American Jurassic mammals.
Report Brit. Assoc. Adv. Sci., 54th meeting,
Montreal, 1884, pp. 734-736.
Illustrated with a geological section.
- 1885 D
On the classification and affinities of
dinosaurian reptiles.
Report Brit. Assoc. Adv. Sci., 54th meeting,
Montreal, 1884, pp. 763-765.
Same as Marsh, O. C., 1884 G.
- 1887 A
American Jurassic mammals.
Amer. Jour. Sci. (3), xxxiii, pp. 326-348,
with pls. vii-x.
See also Geol. Magazine (3), iv, 1887, pp.
242-247, 289-299, pls. vii-ix.
- 1887 B
Notice of new fossil mammals.
Amer. Jour. Sci. (3), xxxiv, pp. 323-331,
with 12 figs. in the text.
- 1887 C
Principal characters of American
Jurassic dinosaurs. Part IX. The
skull and dermal armor of *Stegosaurus*.
Amer. Jour. Sci. (3), xxxiv, pp. 413-417,
with pls. vi-ix.
Reprinted in Geol. Magazine (3), v, pp. 11-15.
- 1888 A
Notice of a new genus of *Sauropoda*
and other new dinosaurs from the
Potomac formation.
Amer. Jour. Sci. (3), xxxv, pp. 89-94, with 9
figs. in the text.
- 1888 B
Notice of a new fossil sirenian from
California.
Amer. Jour. Sci. (3), xxxv, pp. 94-96, with 3
figs. in the text.
- 1888 C
A new family of horned dinosaurs
from the Cretaceous.
Amer. Jour. Sci. (3), xxxvi, pp. 477-478, with
pl. xi.
- 1888 D
The skull and dermal armor of
Stegosaurus.
Geol. Magazine (3), v, pp. 11-15, pls. i-iii,
and 3 figs. in the text.
- Marsh, O. C.—Continued.** 1889 A
Restoration of *Brontops robustus*, from
the Miocene of America.
Amer. Jour. Sci. (3), xxxvii, pp. 163-165,
with pl. vi.
Reprints in Rep. Brit. Assoc. for 1888, pp.
706-707, 1889; Geol. Magazine (3), vi, pp. 99-101.
- 1889 B
Comparison of the principal forms of
the *Dinosauria* of Europe and America.
Amer. Jour. Sci. (3), xxxvii, pp. 323-331.
Also in Geol. Magazine (3), vi, pp. 204-210.
- 1889 C
Notice of new American dinosaurs.
Amer. Jour. Sci. (3), xxxvii, pp. 331-335,
with figs. 1-5.
- 1889 D
Discovery of Cretaceous *Mammalia*.
Amer. Jour. Sci. (3), xxxviii, pp. 81-92, with
pls. ii-v.
Review by W. Dames in Neues Jahrb. Min-
eral., 1890, pp. 141-143.
- 1889 E
Notice of gigantic horned *Dinosauria*
from the Cretaceous.
Amer. Jour. Sci. (3), xxxviii, pp. 173-175,
with 1 text fig.
- 1889 F
Discovery of Cretaceous *Mammalia*,
pt. ii.
Amer. Jour. Sci. (3), xxxviii, pp. 177-180,
with pls. vii-viii.
For review by W. Dames see Neues Jahrb.
Mineral., 1890, pp. 141-143.
- 1889 G
Skull of the gigantic *Ceratopsidae*.
Amer. Jour. Sci. (3), xxxviii, pp. 501-506,
with pl. xii.
Reprinted in Geol. Magazine (3), vii, pp. 1-5,
pl. i.
- 1889 H
Restoration of *Brontops robustus* from
the Miocene of America.
Report Brit. Assoc. Adv. Sci., 58th meeting,
Bath, 1888, pp. 706-707.
Same as Marsh, O. C., 1889 A.
- 1889 I
Additional genera established by
Prof. O. C. Marsh, 1880-1889.
Pp. 13-17.—Issued privately, probably toward
end of year 1889. No date. A list of proposed
genera, with derivations and place of publica-
tion. For beginning of list see Marsh, O. C.,
1880 H.
- 1890 A
Description of new dinosaurian rep-
tiles.
Amer. Jour. Sci. (3), xxxix, pp. 81-86, with
pl. i.

- Marsh, O. C.—Continued.** 1890 B
Distinctive characters of the order
Hallopoda.
Amer. Jour. Sci. (3), xxxix, pp. 415-417, with
1 text figure.
- 1890 C
Additional characters of the *Ceratopsi-*
idae, with notice of new Cretaceous
dinosaurs
Amer. Jour. Sci. (3), xxxix, 418-426, with
pls. v-vii.
- 1890 D
Notice of new Tertiary mammals.
Amer. Jour. Sci. (3), xxxix, pp. 623-626.
- 1890 E
Notice of some extinct *Testudinata*.
Amer. Jour. Sci. (3), xl, pp. 177-179, with
pls. vii, viii.
- 1890 F
The skull of the gigantic *Ceratopsidae*.
Geol. Magazine (3), vii, pp. 1-5, pl. 1.
- 1891 A
A horned artiodactyle (*Protoceras*
celer) from the Miocene.
Amer. Jour. Sci. (3), xli, pp. 81-82.
- 1891 B
The gigantic *Ceratopsidae*, or horned
dinosaurs of North America.
Amer. Jour. Sci. (3), xli, pp. 167-178, pls. 1-x.
Reprinted in Geol. Magazine (3), viii, pp.
198-199, text figs. 1-19, pls. iv, v; pp. 241-248,
text figs. 1-34.
- 1891 C
Restoration of *Triceratops* [and *Bron-*
tosaurus].
Amer. Jour. Sci. (3), xli, pp. 339-342, with
pls. xv, xvi.
Reprinted in part in Geol. Magazine (3), viii,
pp. 248-250, pl. vii.
- 1891 D
Restoration of *Stegosaurus*.
Amer. Jour. Sci. (3), xlii, pp. 179-181, with
pl. ix.
Reprinted in Geol. Magazine (3), viii, pp.
386-387, pl. xi.
- 1891 E
Notice of new vertebrate fossils.
Amer. Jour. Sci. (3), xlii, pp. 265-269.
- 1891 F
Geological horizons as determined
by vertebrate fossils.
Amer. Jour. Sci. (3), xlii, pp. 336-338, with
pl. xli.
See also *Compte rend. Cong. Géolog. Inter-*
nat., Washington, 1891, pp. 156-159, 1893.
- Marsh, O. C.—Continued.** 1891 G
On the gigantic *Ceratopsidae* (or
horned lizards) of North America.
Report of Brit. Assoc. Adv. Sci., 60th meet-
ing, Leeds, 1890, pp. 793-795.
Same as Marsh, O. C., 1891 B.
- 1891 H
On the Cretaceous mammals of North
America.
Report Brit. Assoc. Adv. Sci., 60th meeting,
Leeds, 1890, pp. 853-854.
- 1891 I
Note on Mesozoic *Mammalia*.
Proc. Acad. Nat. Sci. Phila., 1891, pp. 237-
241.
Also in Amer. Naturalist, vol. xxv, pp. 611-
616.
A reply to Osborn, H. F., 1891 A.
- 1891 J
Restoration of *Stegosaurus*.
Geol. Magazine (3), viii, pp. 385-387, with
pl. xi.
- 1892 A
The skull of *Torosaurus*.
Amer. Jour. Sci. (3), xliii, pp. 81-84, with
pls. ii, iii.
- 1892 B
Discovery of Cretaceous *Mammalia*.
Part iii:
Amer. Jour. Sci. (3), xliiii, pp. 249-262, with
pls. v-xi.
- 1892 C
Recent polydactyle horses.
Amer. Jour. Sci. (3), xliiii, pp. 339-355, with
21 figs. in the text.
- 1892 D
A new order of extinct Eocene mam-
mals (*Mesodactyla*).
Amer. Jour. Sci. (3), xliiii, pp. 445-449, with
2 figs. in the text.
- 1892 E
Notice of new reptiles from the Laramie
formation.
Amer. Jour. Sci. (3), xliiii, pp. 449-453, with
text figs. 1-4.
- 1892 F
Notes on Triassic *Dinosauria*.
Amer. Jour. Sci. (3), xliiii, pp. 543-546, with
pls. xv-xvii.
- 1892 G
Notes on Mesozoic vertebrate fossils.
Amer. Jour. Sci. (3), xliiv, pp. 171-176, with
pls. ii-v.
- 1892 H
Restorations of *Coelosaurs* and *Cerato-*
saurus.
Amer. Jour. Sci. (3), xliiv, pp. 343-350, with
pls. vi-viii.

- Marsh, O. C.—Continued.** 1892 I
Restoration of *Mastodon americanus*,
Cuvier.
Amer. Jour. Sci. (3), xlv, p. 350, with pl.
viii.
- 1893 A
A new Cretaceous bird, allied to
Hesperornis.
Amer. Jour. Sci. (3), xlv, pp. 81-82, with 3
figs. in the text.
- 1893 B
The skull and brain of *Claosaurus*.
Amer. Jour. Sci. (3), xlv, pp. 83-86, with
pls. iv, v.
- 1893 C
Restoration of *Coryphodon*.
Amer. Jour. Sci. (3), xlv, pp. 821-826, with
pls. v, vi.
- 1893 D
Description of Miocene *Mammalia*.
Amer. Jour. Sci. (3), xlv, pp. 407-412, with
pls. vii-x.
- 1893 E
Restoration of *Mastodon americanus*,
Cuvier.
Geol. Magazine (3), x, p. 164, pl. viii. Same
as Marsh, O. C., 1892 I.
- 1893 F
Restorations of *Anchisaurus*, *Cerato-*
saurus, and *Claosaurus*.
Geol. Magazine (3), x, pp. 150-157, pls. vi
and vii, and 1 fig. in the text.
- 1893 G
Restoration of *Anchisaurus*.
Amer. Jour. Sci. (3), xlv, pp. 169-170, with
pl. vi.
- 1893 H
Restoration of *Coryphodon*.
Geol. Magazine (3), x, pp. 482-487, pl. xviii,
and 6 figs. in the text.
- 1893 I
Some recent restorations of dino-
saurus.
Nature, xlviii, pp. 437-438.
A correction of some errors in R. Lydekker's
paper in Nature, xlviii, p. 802.
- 1893 J
Discussion sur la corrélation des
roches clastiques.
Compte rend. Cong. Géol. Internat., Wash-
ington, 1891, pp. 156-159.
- 1894 A
Restoration of *Camplosaurus*.
Amer. Jour. Sci. (3), xlvii, pp. 245-246, with
pl. vi.

- Marsh, O. C.—Continued.** 1894 B
Restoration of *Elotherium*.
Amer. Jour. Sci. (3), xlvii, pp. 407-408, with
pl. ix.
- 1894 C
A new Miocene mammal.
Amer. Jour. Sci. (3), xlvii, p. 409, with 3
figs. in the text.
Describes *Heptacodon curtus*.
- 1894 D
Footprints of vertebrates in the Coal-
measures of Kansas.
Amer. Jour. Sci. (3), xlviii, pp. 81-84, with
pls. ii, iii.
- 1894 E
The typical *Ornithopoda* of the Amer-
ican Jurassic.
Amer. Jour. Sci. (3), xlviii, pp. 85-90, with
pls. iv-vii.
- 1894 F
Eastern division of the Miohippus
beds, with notes on some of the char-
acteristic fossils.
Amer. Jour. Sci. (3), xlviii, pp. 91-94, with
2 figs. in the text.
- 1894 G
Restoration of *Camplosaurus*.
Geol. Magazine (3), i, pp. 193-196, with
pl. vi.
Same as Marsh, O. C., 1894 A.
- 1894 H
Restoration of *Elotherium*.
Geol. Magazine (4), i, pp. 294-296, with
pl. x.
Same as Marsh, O. C., 1894 B.
- 1894 I
Footprints of vertebrates in the Coal-
measures of Kansas.
Geol. Magazine (3), i, pp. 337-339, with
pl. xi.
Descriptions and figures of several species.
The same, in part, as Marsh, O. C., 1894 D.
- 1894 J
A gigantic bird from the Eocene of
New Jersey.
Amer. Jour. Sci. (3), xlviii, p. 344, with 5
figs. in the text.
Describes new genus and species, *Barrois*
regens.
- 1894 K
Miocene artiodactyles from the east-
ern Miohippus beds.
Amer. Jour. Sci. (3), xlviii, pp. 175-178,
with 7 figs. in the text.
- 1894 L
Description of Tertiary artiodac-
tyles.
Amer. Jour. Sci. (3), xlviii, pp. 259-274, with
34 figs. in the text.

- Marsh, O. C.—Continued.** 1894 M
A new Miocene tapir.
Amer. Jour. Sci. (3), xlviii, p. 348.
Describes *Tanyops undans* from South Dakota.
- 1895 A
The *Reptilia* of the Baptonodon beds.
Amer. Jour. Sci. (3), 1, pp. 405-406, with 3 figs. in the text.
Figures and describes hind paddle of *Baptonodon discus* and vertebrae of *B. natans* and of *Pantosauros* (*Parasauros*) *striatus*.
- 1895 B
Restoration of some European dinosaurs, with suggestions as to their place among the *Reptilia*.
Amer. Jour. Sci. (3), 1, pp. 407-412, with pls. v-viii, and 1 fig. in the text.
Also in Report Brit. Assoc. Adv. Sci., Ipswich, 1895, pp. 686-688; and Geol. Magazine (4), iii, pp. 1-8, figs. 1, 2 and pls. 1-iv.
- 1895 C
On the affinities and classification of the dinosaurian reptiles.
Amer. Jour. Sci. (3), 1, pp. 483-498, with pl. x.
Abstract of paper read before International Congress of Zoologists, Leyden, 1895. See also Marsh, O. C., 1896 D, Marsh, O. C., 1896 A, and Marsh, O. C., 1896 D.
- 1895 D
Fossil vertebrates.
Johnson's Universal Cyclopædia, viii, pp. 491-498, with double plate containing 16 figs., and 48 figs. in the text.
- 1896 A
Restoration of some European dinosaurs, with suggestions as to their place among the *Reptilia*.
Geol. Magazine (4), iii, pp. 1-9, pls. 1-iv.
See also Marsh, O. C., 1896 C.
- 1896 B
A new Belodont reptile (*Stegomus*) from the Connecticut River sandstone.
Amer. Jour. Sci. (4), ii, pp. 59-62, with 3 figs. in the text.
Describes *Stegomus arcuatus*.
- 1896 C
The dinosaurs of North America.
Sixteenth Annual Report U. S. Geol. Surv., 1894-95, part 1, pp. 133-244, with pls. ii-lxxxv, and text figs. 1-66.
- 1896 D
On the affinities and classification of dinosaurian reptiles.
Compte rendu des séances du troisième Congrès International de Zoologie, Leyden, 1895, pp. 196-211, with 1 pl. and 11 figs. in the text.
See also Marsh, O. C., 1896 A and 1896 C.
- Marsh, O. C.—Continued.** 1896 E
The geology of Block Island.
Amer. Jour. Sci. (4), ii, pp. 295-298.
- 1896 F
The Jurassic formation on the Atlantic coast.
Amer. Jour. Sci. (4), ii, pp. 433-447, with 2 figs. in text showing relationships of the strata.
See also Science (2) 1v, pp. 806-816, figs. 1-2.
- 1896 G
Amphibian footprints from the Devonian.
Amer. Jour. Sci. (4), ii, pp. 374-375, with 1 fig. of footprint of *Thinopus antiquus*.
- 1897 A
Affinities of *Hesperornis*.
Amer. Jour. Sci. (4), iii, pp. 347-348.
- 1897 B
The *Stylinodontia*, a suborder of Eocene Edentates.
Amer. Jour. Sci. (4), iii, pp. 137-146, with 9 figs. in the text.
- 1897 C
Vertebrate fossils of the Denver Basin.
Monographs U. S. Geol. Surv., xxvii, pp. 473-527, with pls. xxi-xxxi and text figs. 23-102.
- 1897 D
Principal characters of the *Protoceratidæ*.
Amer. Jour. Sci. (4), iv, pp. 165-176, with pls. ii-vii, with 7 figs. in the text.
- 1897 E
Recent observations on European dinosaurs.
Amer. Jour. Sci. (4), iv, pp. 413-416.
- 1898 A
New species of *Ceratopsia*.
Amer. Jour. Sci. (4), vi, p. 92.
Describes *Triceratops calicornis* and *T. obtusus*.
- 1898 B
The origin of mammals.
Amer. Jour. Sci. (4), vi, pp. 406-409.
Remarks made at International Congress of Zoologists, Cambridge, Eng., 4th meeting, Proceedings, pp. 71-74. See also Science (2), viii, pp. 953-955.
- 1898 C
On the families of sauropodous *Dinosauria*.
Amer. Jour. Sci. (4), vi, pp. 487-488.
Also in Report Brit. Assoc. Adv. Sci. for 1898 (1899), pp. 909-910. Geol. Magazine (4), vi, 1899, pp. 157-158.

- Marsh, O. C.**—Continued. 1898 D
List of scientific publications of
Othniel Charles Marsh, professor of
paleontology in Yale University, 1861–
1896.
Pp. 1–49, with two supplements (pp. 50–58),
which extend the list to the end of 1896.
Issued privately. See Marsh, O. C., 1889, I.
- 1898 E
Comparative value of fossils in chro-
nology.
Geol. Magazine (4), v, pp. 565–568.
- 1899 A
Footprints of Jurassic dinosaurs.
Amer. Jour. Sci. (4), vii, pp. 227–232, with pl.
v, and 3 figs. in the text.
Reviewed in Neues Jahrb. Mineral., 1901,
ii, p. 305.
- 1899 B
Note on a Bridger Eocene carnivore.
Amer. Jour. Sci. (4), vii, p. 397.
Refers *Limnocyon riparius* Marsh to the new
genus *Telmatoceon*.
- Marshall, William.** 1872 A
Beobachtungen über den Vogel-
schwanz.
Niederländisches Archiv Zoologie, i, pp.
194–210, with pl. xvi
- Martin, K.** 1873 A
Ein Beitrag zur Kenntniss fossiler
Euganoiden.
Zeitschr. deutsch. geol. Gesellsch., xxv,
pp. 699–735, with pl. xxii.
Treats of the anatomy of *Palaeoniscus*, *Acro-
lepis*, *Amblypterus*, *Pygopterus*, etc.
According to Traquair this paper contains
many errors.
- Martin, W.** 1836 A
On the osteology of the sea otter,
Enhydra marina Flem.
Proc. Zool. Soc. Lond., 1836, iv, pp. 59–62.
- Martins, Charles.** 1874 A
Sur l'ostéologie des membres anté-
rieurs de l'ornithorynque et de l'échid-
ne comparée à celle des membres
correspondants dans les reptiles, les
oiseaux et les mammifères.
Assoc. française pour les sciences, 2d ses-
sion, Lyon, 1873, pp. 533–539.
- Mason, William D. H.** 1878 A
Letter on the batrachian foot tracks
from the Ellengowan shaft in Schuyl-
kill County, dated April 5, 1878.
Proc. Amer. Philos. Soc., xvii, pp. 716–719, 725.
- Mather, W. W.** 1835 A
[Note on sharks' teeth.]
Amer. Jour. Sci., xxviii, p. 378, with two
woodcuts.
- Mather, W. W.**—Continued. 1838 A
[Letter to editor on bones and teeth
of "*Elephas jacksoni*" found in Ohio.]
Amer. Jour. Sci., xxxiv, pp. 362–364, with 3
figs. in the text.
For additional information of these remains,
without name, see Mather's First Ann. Rep.
Geol. Surv., Ohio, 1838, p. 96. The same is re-
printed in Amer. Jour. Sci., xxxiv, p. 358.
- Matthew, G. F.** 1886 A
Discovery of a Pteraspidian fish in
the Silurian rocks of New Brunswick.
Canadian Record of Science, ii, pp. 251–252,
with fig. in the text.
Describes finding of *Pteraspis? acadica*.
- 1887 A
Additional note on the Pteraspidian
fish found in New Brunswick.
Canadian Record of Science, ii, pp. 323–325,
with 1 fig. in the text.
Refers to *Pteraspis? acadica* (*Cyathaspis aca-
dica*).
- 1887 B
A preliminary notice of a new genus
of Silurian fishes.
Bull. Nat. Hist. Soc. New Brunswick, vi,
pp. 69–73, with 1 fig. in the text.
The new genus *Diplaspis* is proposed, with
D. acadica as type.
- 1888 A
On some remarkable organisms of the
Silurian and Devonian rocks in south-
ern New Brunswick.
Trans. Roy. Soc. Canada, vi, pp. 49–62, with
pl. iv.
Has description and figures of *Diplaspis aca-
dica* and comparison with *Palaeaspis americana*.
- 1891 A
[A letter to the American Geologist
regarding the age of the Silurian fish,
Diplaspis acadica.]
Amer. Geologist, viii, pp. 61–62.
- Matthew, W. D.** 1897 A
Development of the foot in the *Palaeo-
sypninae*.
Amer. Naturalist, xxxi, pp. 57–58.
Reviewed by M. Schlosser in Neues Jahrb.
Mineral., 1901, i, p. 148.
- 1897 B
On the status of the Puerco fauna.
Anatom. Anzeiger, xiv, pp. 231–232.
See also Science (2), vi, p. 862.
Preliminary report of a paper read before
the New York Academy of Sciences.
- 1897 C
A revision of the Puerco fauna.
Bull. Amer. Mus. Nat. Hist., ix, pp. 259–323,
with 20 figs. in the text.
Reviewed by Schlosser in Neues Jahrb. Min-
eral., 1900, i, Ref., pp. 299–308.

- Matthew, W. D.**—Continued. 1898 A
On some new characters of *Clanodon*
and *Oryzina*.
Science (2), viii, p. 880.
A brief abstract.
- 1898 B
[Remarks on *Mirodetes*.]
Trans. N. Y. Acad. Sci., xvi, pp. 369-370.
- 1899 A
A provisional classification of the
fresh-water Tertiary of the West.
Bull. Amer. Mus. Nat. Hist., xii, pp. 19-75.
Presents lists of mammals occurring in each
of the formations of each of the basins.
See also Wortman and Matthew.
- Maxwell, J. B.** 1845 A
[A letter concerning the discovery of
mastodon bones near Hackettstown,
N. J.]
Proc. Amer. Philos. Soc., iv, pp. 118-121; 127.
Reprinted in Lond. and Edinb. Philos.
Mag., 1845, xxvi, pp. 453-456.
- Mayer, Paul.** 1886 A
Die unpaaren Flossen der Selachier.
Mittheil. Zoolog. Station zu Neapel, vi, pp.
217-285, with pls. 15-19.
Contains also a discussion of the "Halbwir-
bel der Selachier," p. 261.
Comments on by J. A. Ryder, Amer. Nat-
uralist, xx, p. 142.
- Mayer, —.** 1825 A
Die hintere Extremität der Ophidier.
Nova Acta Acad. Caes. Leop.-Car., xii, pp.
819-842, with pls. lxvi, lxvii.
- Mayo, Florence.** 1888 A
The superior incisors and canine
teeth of sheep.
Bull. Mus. Comp. Zool., xlii, pp. 247-258,
with pls. i-ii.
- Mehnert, Ernst.** 1887 A
Untersuchungen über die Entwick-
lung des Os pelvis der Vögel.
Morpholog. Jahrbuch, xlii, pp. 259-296, with
pls. viii-x and 4 figs. in the text.
Contains numerous citations of the litera-
ture of the development and homologues of
the pelvic bones.
- 1889 A
Untersuchungen über die Entwick-
lung des Beckengürtels bei einigen
Säugethieren.
Morpholog. Jahrbuch, xv, pp. 97-112, with
pl. vi.
Contains numerous references to the litera-
ture of the subject.
- Mehnert, Ernst**—Continued. 1890 A
Untersuchungen über die Entwick-
lung des Beckengürtels der *Emys hularia*
taurica.
Morpholog. Jahrbuch, xvi, pp. 587-571, with
pl. xx.
Contains numerous references to the litera-
ture.
- Mensbier, M. v.** 1887 A
Vergleichende Osteologie der Pin-
guine in Anwendung zur Hauptein-
theilung der Vögel.
Bull. Soc. Imp. Natur. Moscou (n. s.), ii, pp.
483-687, with pl. viii.
- Mercer, H. C.** 1894 A
Reexploration of Hartman's Cave,
near Stroudsburg, Pa., in 1892.
Proc. Acad. Nat. Sci. Phila., 1894, pp. 96-104.
- 1895 A
A preliminary account of the reex-
ploration, in 1894 and 1895, of the
"Bone Hole," now known as Irwin's
Cave at Port Kennedy, Montgomery
County, Pa.
Proc. Acad. Nat. Sci. Phila., 1895, pp. 443-446.
- 1897 A
The finding of the fossil sloth at Big
Bone Cave, Tennessee, in 1896.
Proc. Amer. Philos. Soc., xxxvi, pp. 36-70,
with 26 half-tone figs. in the text.
- 1899 A
The bone cave at Port Kennedy, Pa.,
and its partial excavation in 1894, 1895,
and 1896.
Jour. Acad. Nat. Sci. Phila., xi, pp. 269-286,
with 11 text figs. and a chart of the cave.
Besides a description of the cave, a list of the
species recovered is given. These are described
in Cope, E. D., 1899 A.
- Merian, Peter.** 1875 A
Ueber einen angeblichen Embryo
von *Ichthyosaurus*.
Verhandl. naturf. Gesellsch. Basel, vi, pp.
343-344.
- Mermier, Élie.** 1896 A
Étude complémentaire sur l'*Acer-
atherium platyodon* de la Mollasse bur-
digalienne supérieure des environs de
Saint-Nazaire en Royans (Drôme).
Ann. Soc. Linn. de Lyon (n. s.), xliii, pp.
225-240, with pls. i, ii.
Additional observations are recorded on pp.
257-260.
- Merriam, C. Hart.** 1894 A
A new subfamily of murine rodents—
the *Neotominae*—with descriptions of a

Merriam, C. Hart.—Continued.

new genus and species and a synopsis of the known forms.

Proc. Acad. Nat. Sci. Phila., 1894, pp. 225-252, with 5 figs. in text.

1895 A

Monographic revision of the pocket gophers, family *Geomyidae* (exclusive of the species of *Thomomys*).

N. A. Fauna, No. 8 (U. S. Dept. Agriculture), pp. 1-259, with pls. 1-19, maps 1-4, and text figs. 1-71.

1895 B

Revision of the shrews of the American genera *Blarina* and *Notiosorex*.

N. A. Fauna, No. 10 (U. S. Dept. Agriculture), pp. 1-34, with pls. 1-3.

1895 C

Synopsis of the American shrews of the genus *Sorex*.

N. A. Fauna, No. 10 (U. S. Dept. Agriculture), pp. 57-98, with pls. v-xii.

1896 A

Preliminary synopsis of the American bears.

Proc. Biolog. Soc. Washington, x, pp. 65-83, with pls. iv-vi, with 17 figs. in the text.

In this paper 10 species of bears are recognized as occurring in North America.

Merriam, J. C.

1894 A

Über die Pythonomorphen der Kansas Kreide.

Paläontographica, xii, pp. 1-39, with 4 pls. and 1 text fig.

1895 A

On some reptilian remains from the Triassic of northern California.

Amer. Jour. Sci. (3), pp. 55-57, with 2 figs. in the text.

Describes the new genus and species *Shastasauros pacificus*.

1896 A

Sigmogomphius lecontei, a new Castoroid rodent from the Pliocene near Berkeley, Cal.

Bulletin of the department of geology of the University of California, i, pp. 363-370, with 2 figs. in the text.

1899 A

Report on the expedition to the John Day fossil fields.

University Chronicle [Univ. of California], ii, pp. 217-224.

A general account of the region. No species are described.

Metschnikoff, Olga.

1879 A

Zur Morphologie des Becken- und Schulterbogens der Knorpelfische.

Zeitschr. wissenschaft. Zool., xxxiii, pp. 423-438, with pl. xxiv.

Mettam, A. E.

1895 A

The rudimentary metacarpal and metatarsal bones of the domestic ruminants.

Jour. Anat. and Physiol., xxix, pp. 244-253, with 6 figs. in the text.

Meyer, H. v.

1832 A

Cervus alces fossilis (fossiler Elenn).

Nova Acta Acad. Caes. Leop.-Car., xvi, pp. 463-486, with pl. xxxvii.

1834 A

Die fossilen Zähne und Knochen und ihre Ablagerung in der Gegend von Georgensmund in Bayern.

4to, pp. i-viii, 1-126, with pls. i-xiv.

1835 A

Ueber fossile Reste von Ochsen, deren Arten und das Vorkommen derselben.

Nova Acta Acad. Caes. Leop.-Car. xvii, pp. 101-170, with pls. viii-xii A.

Describes *Bos priscus*, and considers briefly *Bos pallasi* Dekay and *Bos bombifrons*. *Bos priscus* includes *Bison latifrons* of Harlan.

1840 A

[Letter to editor on Grateloup's genus *Squalodon*.]

Neues Jahrb. Mineral., 1840, pp. 587-588.

1841 A

[Letters to editor on *Protosaurus*, *Squalodon*, and *Hyotherium*.]

Neues Jahrb. Mineral., 1841, pp. 101-104, 241-242.

1844 A

Ueber die fossilen Knochen aus dem Tertiär-Gebilde des Cerro de San Isidro bei Madrid.

Neues Jahrb. Mineral., 1844, pp. 289-310.

Contains description of *Anchitherium*.

1845 A

Zur Fauna der Vorwelt. Fossile Säugethiere, Vögel und Reptilien aus dem Molasse-Mergel von Oeningen.

Pp. i-vi, 1-62, with 12 pls. Frankfurt am Main, 1845.

Continued in Meyer, H. v. 1856 A, Meyer, H. v. 1856 B, and Meyer, H. v. 1860 D.

1845 B

Letter directed to Professor Brown.

Neues Jahrb. Mineral., 1845, pp. 308-312.

Contains remarks on *Mosasaurus maximiliani* and *M. missouriensis*.

- Meyer, H. v.—Continued.** 1847 A
Die erloschene Cetaceen-Familie der Zeuglodonten, mit *Zeuglodon* und *Squalodon*.
Neues Jahrb. Mineral., 1847, pp. 669-674.
- 1851 A
Pterodactylus (Rhamphorhynchus) gemmingi.
Palaeontographica, i, pp. 1-21, with pl. v.
- 1851 B
Ueber den *Archegosaurus* der Steinkohlenformation.
Palaeontographica, i, pp. 209-215, with pl. xxxiii, figs. 15-17.
- 1852 A
Ueber die Beschaffenheit des Stosszahnes von *Elephas primigenius* in der Jugend.
Palaeontographica, ii, pp. 75-77, with pl. xiv.
- 1852 B
Ueber *Chelydra purchisoni* und *Chelydra decheni*.
Palaeontographica, ii, pp. 237-247, with pls. xxvi-xxx.
- 1854 A
Anthracotheurium dalmatinum aus der Braunkohle des Monte Promina in Dalmatien.
Palaeontographica, iv, pp. 61-66, with pl. xi.
- 1855 A
Zur Fauna der Vorwelt. Die Saurier des Muschelkalkes, mit Rücksicht auf die Saurier aus buntem Sandstein und Keuper.
Pp. i-viii; 1-167, with 70 pls. Frankfurt am Main, 1847-1855.
- 1856 A
Ueber den Jugendstand der *Chelydra decheni* aus der Braunkohle des Siebengebirges.
Palaeontographica, iv, pp. 56-60.
- 1856 B
Zur Fauna der Vorwelt. Saurier aus dem Kupferschiefer der Zechstein-Formation.
Pp. i-vi; 1-28, with 9 pls. Frankfurt am Main, 1856.
- 1857 A
Reptilien aus der Steinkohlen-Formation in Deutschland.
Palaeontographica, vi, pp. 59-219, with pls. villa-xxiii.
- Meyer, H. v.—Continued.** 1858 A
Reptilien aus der Steinkohlen-Formation in Deutschland.
Pp. 1-126, with pls. A; i-xv. Cassel, 1858. Folio.
This memoir is devoted to descriptions and illustrations of *Archegosaurus* and its species.
- 1860 A
Rhamphorhynchus gemmingi.
Palaeontographica, vii, pp. 79-89; pl. xii.
- 1860 B
Frösche aus Tertiär-Gebilden Deutschlands.
Palaeontographica, vii, 123-182; pls. xvi-xxii.
- 1860 C
Saurier aus der Tuff-Kreide von Maastricht und Folx-les-Caves.
Palaeontographica, vii, pp. 241-244; pl. xxvi.
- 1860 D.
Zur Fauna der Vorwelt. Reptilien aus dem lithographischen Schiefer des Jura in Deutschland und Frankreich.
Pp. i-viii; 1-142, with 21 pls. Frankfurt am Main, 1860.
- 1861 A
Reptilien aus dem Stubensandstein des obern Keupers.
Palaeontographica, vii, pp. 253-346; pls. xxviii-xlvii.
- 1861 B
Pterodactylus spectabilis aus dem lithographischen Schiefer von Eichstätt.
Palaeontographica, x, pp. 1-10, pl. 1.
- 1863 A
Der Schädel des *Belodon* aus dem Stubensandstein des obern Keupers.
Palaeontographica, x, pp. 227-246, pls. xxxviii-xlii.
- 1864 A
Die diluvialen Rhinoceros-Arten.
Palaeontographica, xi, pp. 233-283, with pls. xxxv-xliii.
- 1865 A
Der Schädel von *Glyptodon*.
Palaeontographica, xiv, pp. 1-18, with pls. i-vii.
- 1865 B
Reptilien aus dem Stubensandstein des obern Keupers.
Palaeontographica, xiv, pp. 99-104, pls. xxiii-xxix.
- 1865 C
Zu *Chelydra decheni* aus der Braunkohle des Siebengebirges.
Palaeontographica, xv, pp. 41-47, with pl. ix.

- Meyer, H. v.**—Continued. 1867 A
Die fossile Reste des Genus *Topirus*.
Palaeontographica, xv, pp. 159-200, with pls.
xxv-xxxii.
- 1867 B
Studien über das Genus *Mastodon*.
Palaeontographica, xvii, pp. 1-72, with pls.
1-ix.
- Meyer, Otto.** 1885 A
Insectivoren und *Galeopithecus* geologisch alte Formen.
Neues Jahrb. Mineral., 1885, ii, pp. 229-230.
- Miall, L. C.** 1874 A
Report of the committee, consisting of Professor Phillips, LL. D., F. R. S., Professor Harkness, F. R. S., Henry Woodward, F. R. S., James Thompson, John Brigg, and L. C. Miall, on the Labyrinthodonts of the Coal-measures. Drawn up by L. C. Miall, secretary to the committee.
Report Brit. Assoc. Adv. Sci., Bradford meeting, 1873, pp. 225-249, with pls. 1-11.
- 1874 B
On the composition and structure of the bony palate of *Ctenodus*.
Quart. Jour. Geol. Soc., xxx, pp. 772-775, with pl. xivii.
- 1875 A
Report of the committee, consisting of Professor Huxley, LL. D., F. R. S., Professor Harkness, F. R. S., Henry Woodward, F. R. S., James Thompson, John Brigg, and L. C. Miall, on the structure and classification of the Labyrinthodonts. Drawn up by L. C. Miall, secretary to the committee.
Report Brit. Assoc. Adv. Sci., Belfast meeting, 1874, pp. 149-192, with pls. iv-vii.
Abstract in Nature, 1874, vol. x, p. 449.
- 1875 B
On the structure of the skull of *Rhizodus*.
Quart. Jour. Geol. Soc., xxxi, pp. 624-627, with 1 text fig.
- 1875 C
Sur les Labyrinthodontes du terrain houiller. Deuxième partie.
Jour. de Zool. iv, pp. 19-37.
- 1878 A
Monograph of the Sirenoid and Crocodypterian Ganoids.
Palaeontographical Society, xxxii, pp. 1-32; pls. 1, 1a, ii-v.
- Miall, L. C.**—Continued. 1878 B
On the genus *Ceratodus*, with special reference to the fossil teeth found at Malédi, Central India.
Palaeont. Indica (4), i, pp. 10-17, with pl. iv.
- 1878 C
The skull of the crocodile. A manual for students.
8 vo, pp. 1-50, London, 1878.
Pp. 42-50 contain a translation with annotations of Rathke's Untersuchungen über die Entwicklung und den Körperbau der Krokodile.
- 1880 A
On some bones of *Ctenodus*.
Proc. Yorkshire Zool. and Polytech. Soc. (2), vii, pp. 289-299, with 12 text figs.
- 1884 A
On a new specimen of *Megalichthys* from the Yorkshire coal field.
Quart. Jour. Geol. Soc., xl, pp. 347-352, with 6 figs. in the text.
- Middendorff, A. Th.** 1850 A
Untersuchungen an Schädeln des gemeinen Landbären als kritische Beleuchtung der Streitfrage über die Arten fossiler Hohlenbären.
Verhandl. russ.-kais. mineralog. Gesellsch., St. Petersburg, Jahrg., 1850-51, pp. 7-99, with text figures.
- Middleton, W. G., and Moore, Joseph.** 1900 A
Skull of fossil bison.
Proc. Indiana Acad. Sci. for 1899, pp. 178-181, with plate.
- Miller, Gerritt S.** 1894 A
On a collection of small mammals from the New Hampshire mountains.
Proc. Boston Soc. Nat. Hist., xxvi, pp. 177-197, with pls. iii, iv.
- 1896 A
Genera and subgenera of voles and lemmings.
N. A. Fauna, No. 12 (U. S. Dept. Agriculture), pp. 1-35, with pls. i-iii and 40 figs. in the text.
- 1897 A
Revision of the North American bats of the family *Vespertilionidae*.
N. A. Fauna, No. 13 (U. S. Dept. Agriculture), pp. 1-135, with 40 figs. in the text.
This work discusses critically the nomenclature and synonymy of the family *Vespertilionidae* and its genera and species.
- 1899 A
A new fossil bear from Ohio.
Proc. Biolog. Soc. Washington, xiii, pp. 53-56. Describes *Ursus procerus*.

- Miller, Gerritt S.**—Continued. 1899 B
Preliminary list of New York mammals.
Bull. N. Y. State Mus., vi, No. 29, pp. 271-390.
On pages 372-376 is given a list of the fossil species known from the State.
- Miller, Hugh.** 1859 A
The Old Red sandstone; or new walks in an old field; to which is appended a series of geological papers read before the Royal Physical Society of Edinburgh.
Pages 427, pls. 14. Boston: Gould and Lincoln, 1859.
Original edition published at Edinburgh, 1841.
- 1873 A
Footprints of the Creator, or the *Asterolepis* of Stromness, with a memoir by Louis Agassiz.
Fifteenth edition. Edinburgh, 1873. William P. Nimmo.
- Miller, John.** 1872 A
On the so-called hyoid plate of the *Asterolepis* of the Old Red sandstone.
Report Brit. Assoc. Adv. Sci., 41st meeting, Edinburgh, 1871, pp. 106-107.
- Miller, S. A.** 1877 A
The American Palæozoic fossils: a catalogue of the genera and species, with names of authors, dates, places of publication, groups of rocks in which found, and the etymology and signification of the words, and an introduction devoted to the stratigraphical geology of the Palæozoic rocks.
Cincinnati, Ohio, 1877, pages i-xv; 1-246.
Pages 227-242 are devoted to lists of the genera and species of Palæozoic vertebrates. In 1883 the author published a supplement consisting of pages 247 to 334, in which were additions and corrections to the contents of the original work. The latter and the supplement bound together constitute the second edition, with the original title. As the same author's work of 1899 is fully quoted in this Bibliography and Catalogue, the present one is not quoted.
- 1889 A
North American geology and palæontology, for the use of amateurs, students, and scientists.
Pp. 1-664, with 1,177 figs. in the text. Cincinnati, Ohio, 1889.
Pp. 586-614 contain a list of the genera and species of Palæozoic fishes, with references to places of publication. The genera are defined. Pp. 614-627 are similarly devoted to the *Batrachia*.
- Miller, S. A.**—Continued. 1892 A
First appendix, 1892. [To North American geology and palæontology.] Pp. 665-718.
The names of vertebrates are found on pp. 713-718. A number of new generic names are proposed to replace preoccupied names.
- 1897 A
Second appendix to North American geology and palæontology.
Pp. 719-798.
- Miller, Sylvanus.** 1837 A
Retrospective notice of the discovery of fossil mastodon bones in Orange county (N. Y.).
Amer. Jour. Sci., xxxi, pp. 171-172.
Extract from a letter addressed by Sylvanus Miller, esq., to Hon. Dewitt Clinton, in 1815.
- Minot, C. S.** 1882 A
Is man the highest animal?
Proc. Amer. Assoc. Adv. Sci., 30th meeting, Cincinnati, 1881, pp. 240-242.
- Mitchell, Hugh.** 1862 A
On the restoration of *Pteraspis*.
The Geologist, v, pp. 404-406, with 3 figs. in the text.
- 1864 A
Restoration of *Pteraspis*.
The Geologist, vii, pp. 117-118, fig. 1.
- Mitchell, James A.** 1895 A
The discovery of fossil tracks in the Newark system (Jura-Trias) of Frederick county, Md.
Johns Hopkins University circulars, xv, no. 121, pp. 15-16.
No species are named.
- Mitchill, Samuel L.** 1818 A
Observations on the geology of North America; illustrated by the description of various organic remains found in that part of the world.
Cuvier's Essay on the theory of the earth, pp. 319-431, with pls. vi-viii. American edition published by Kirk & Mercein, New York.
- 1824 A
Observations on the teeth of the *Megatherium* recently discovered in the United States.
Annals Lyc. Nat. Hist. N. Y., i, pp. 58-61, pl. vi.
- Mitchill, Smith, J. A., and Cooper.** 1828 A
Discovery of a fossil walrus in Virginia. Report of Messrs. Mitchill, J. A. Smith, and Cooper on a fossil skull

Mitchell, Smith, J. A., and Cooper—
Continued.

sent to Dr. Mitchell by Mr. Cooper, of
Accomac County, Va.

Annals Lyc. Nat. Hist. N. Y., ii, pp. 271-272.
Notice of in Edinb. New Philos. Jour.,
1828, v., p. 828.

Mitvier, M. M. 1892 A
New footprints from the Connecticut
Valley.

Proc. Amer. Assoc. Adv. Sci., 40th meet-
ing, Washington, 1891, p. 286. An abstract in
5 lines.

Mivart, St. George. 1864 A
Notes on the crania and dentition of
the *Lemuridæ*.

Proc. Zool. Soc. Lond., 1864, pp. 611-648,
with 8 figs. in the text.

1865 A
Contributions toward a more perfect
knowledge of the axial skeleton in the
Primates.

Proc. Zool. Soc. Lond., 1865, pp. 545-592,
with 13 figs. in the text.

1867 A
Additional notes on the osteology of
the *Lemuridæ*.

Proc. Zool. Soc. Lond., 1867, pp. 960-975,
with 7 figs. in the text.

1867 B
Notes sur l'ostéologie des Insecti-
vores.

Ann. Sci. Naturelles. (5), Zool. viii, pp.
221-284, with figs. in the text.

1867 C
Notes on the osteology of the *Insecti-
vora*.

Jour. Anat. and Physiol. i, pp. 281-312, with
several text figs.; ii, pp. 117-154.

1868 A
Notes sur l'ostéologie des Insecti-
vores.

Ann. Sci. Naturelles, (5), Zool. ix, pp.
311-372, with figs. in the text.

A continuation of Mivart, St. G., 1867 B.

1868 B
On the appendicular skeleton of the
Primates.

Philos. Trans. Roy. Soc. Lond., civil, pp.
299-429, pls. xi-xiv.

1870 A
On the axial skeleton of the *Urodela*.
Proc. Zool. Soc. Lond., 1870, pp. 260-278, with
19 figs. in the text.

1871 A
On *Hemicentetes*, a new genus of *In-
sectivora*, with some additional remarks
on the osteology of that order.

Proc. Zool. Soc. Lond., 1871, pp. 58-79, with
pl. v and 9 text figs.

Mivart, St. George—Continued. 1873 A
On *Lepilemur* and *Cheirogaleus*, and
on the zoological rank of the *Lemu-
roidea*.

Proc. Zool. Soc. Lond., 1873, pp. 484-519, with
pl. xliii and 18 woodcuts in the text.

1874 A
On the axial skeleton of the ostrich
(*Struthio camelus*).

Trans. Zool. Soc. Lond., viii, pp. 385-451,
with 79 figs. in the text.

1875 A
Ape.
Encylop. Brit., ed. 9, ii, pp. 148-169, with 19
figs. in the text.
This article is followed by a bibliography of
the subject.

1877 A
On the axial skeleton of the *Stru-
thionidæ*.

Trans. Zool. Soc. Lond., x, pp. 1-52, with 48
figs. in the text.

1878 A
On the axial skeleton of the *Peleca-
nidæ*.

Trans. Zool. Soc. Lond., x, pp. 315-378, with
pls. lv-lxi.

1879 A
Notes on the fins of Elasmobranchs,
with considerations on the nature and
homologies of vertebrate limbs.

Trans. Zool. Soc. Lond., x, pp. 439-484, with
pls. lxxiv-lxxix.

1881 A
The cat; an introduction to the study
of the backboneed animals, especially
mammals.

Pp. i-xxiii; 1-567, with 1 pl. and 208 figs. in
the text. 8 vo.

1882 A
On the classification and distribution
of the *Eluroidea*.

Proc. Zool. Soc. Lond., 1882, pp. 135-208, with
15 figs. in the text.

1885 A
Notes on the *Pinnipedia*.
Proc. Zool. Soc. Lond., 1885, pp. 484-501.
Abstract in Archiv f. Anthropol., xvii, pp.
176-177.

1885 B
On the anatomy, classification, and
distribution of the *Arctoidea*.

Proc. Zool. Soc. London, 1885, pp. 340-404.
Pp. 397-404 contain valuable tables, which
give measurements of various portions of the
skeletons, including teeth, of all the genera
belonging to the *Arctoidea*.

- Mivart, St. George**—Continued. 1886 A
 Reptiles.
 Encyclop. Brit., ed. 9, xx, pp. 445-465, with
 figs. 3-29.
 This portion of the article on *Reptilia* treats
 of the anatomy of the members of the class,
 especially of the osteology. Appended is a list
 of general works on the anatomy.
- 1892 A
 Birds: The elements of ornithology.
 Pp. 1-329, with 174 illus., London.
- Möbius, K.** 1892 A
 Die Behaarung des Mammuths und
 der lebenden Elephanten, vergleichend
 untersucht.
 Sitzungsber. k. p. Akad. Wissensch. Berlin,
 math. naturw. Cl., 1892, pp. 527-538, with pl. iv.
- Mojisovics, A.** 1889 A
 Ueber einen seltenen Fall von Poly-
 dactylismus beim Pferde.
 Anatom. Anzeiger, iv, pp. 265-266.
- Molin, Raffaele.** 1859 A
 Sulla reliquie d' un *Pachyodon* disso-
 terrate a Libano due ore nord-est di
 Belluno in mezzo all' arenaria grigia.
 Sitzungsber. Akad. Wissensch. Berlin, math.-
 nat. Cl., xv, pp. 117-123, with pls. i, ii.
- Mollier, S.** 1892 A
 Zur Entwicklung der Selachier-
 extremitäten.
 Anatom. Anzeiger, vii, 1892, pp. 361-365.
 Treats of the embryological development of
 the limbs of *Selachii*.
- 1893 A
 Die paarigen Extremitäten der Wir-
 belthiere. I. Das Ichthyopterygium.
 Merkel and Bonnet's Anatom. Hefte, Ergeb-
 nisse, iii, pp. 1-160, with pls. 1-viii and several
 text figs.
- 1895 A
 Die paarigen Extremitäten der Wir-
 belthiere. II. Das Cheiropterygium.
 Merkel and Bonnet's Anatom. Hefte, Ergeb-
 nisse, v, pp. 435-529, with 8 pls.
- Monks, Sarah P.** 1878 A
 The columella and stapes in some
 North American turtles.
 Proc. Amer. Philos. Soc., xvii, pp. 335-337,
 pls. xvi, xvii.
- Moore, Charles.** 1857 A
 On the skin and food of *Ichthyosauri*
 and *Teleosauri*.
 Report Brit. Assoc. Adv. Sci., 26th meeting,
 Cheltenham, 1856, pp. 69-70.
- Moore, Joseph.** 1890 A
 A recent find of *Castoroides*.
 Amer. Naturalist, xxiv, pp. 767-768.
 Found at Richmond, Ind.
- Moore, Joseph**—Continued. 1890 B
 Concerning a skeleton of the great
 fossil beaver, *Castoroides ohioensis*.
 Jour. Cincinnati Soc. Nat. Hist., xiii, pp. 138-
 169, with 25 figs. in the text.
- 1891 A
 Concerning some portions of *Casto-
 roides ohioensis* not heretofore known.
 Proc. Amer. Assoc. Adv. Sci., 39th meeting,
 Indianapolis, 1890, pp. 265-267.
 Abstract of paper presented.
- 1893 A
 The recently found *Castoroides* in Ran-
 dolph County, Ind.
 Amer. Geologist, xii, pp. 67-74, with pl. iii.
- 1897 A
 The Randolph mastodon.
 Proc. Indiana Acad. Sci. for 1896, pp. 277-278,
 with pl.
 Records finding of remains of a large masto-
 don in Randolph County, Ind., and of another
 near New Paris, Ohio.
- 1900 A
 A cranium of *Castoroides* found at
 Greenfield, Ind.
 Proc. Indiana Acad. Sci. for 1899, p. 171, with
 pls. i, ii.
- Moore, W. D.** 1873 A
 On footprints in the Carboniferous
 rocks of western Pennsylvania.
 Amer. Jour. Sci. (3), v, pp. 292-293.
 †*Chetrotherium reitleri* described.
- Moreno, Francisco P.** 1892 A
 Lijeros apuntes sobre dos géneros de
 cetáceos fósiles de la República Argen-
 tina.
 Revista Museo La Plata, iii, pp. 393-400, with
 pls. x, xi.
- Morse, E. S.** 1871 A
 On the carpal and tarsal bones of
 birds.
 Amer. Naturalist, v, pp. 524-525.
- 1872 A
 On the tarsus and carpus of birds.
 Annals Lyc. Nat. Hist. N. Y., x, pp. 141-158,
 with pls. iv, v.
- 1880 A
 On the identity of the ascending
 process of the astragalus in birds with
 the intermedium.
 Anniv. Mem. Boston Soc. Nat. Hist., 1880,
 pp. 3-10, pl. i, and 12 figs. in the text.
- 1884 A
 Man in the Tertiaries.
 Amer. Naturalist, xviii, pp. 1001-1012.
 Vice-presidential address before section of
 anthropology A. A. A. S., 1884.
- Morton, S. G.** 1830 A
 Synopsis of the organic remains of

Morton, S. G.—Continued.

the ferruginous sand formation; with geological remarks.

Amer. Jour. Sci., xvii, pp. 274-295; xviii, pp. 243-250.

Contains brief and unimportant remarks on the few fossil vertebrates known at that time from the Cretaceous rocks.

1834 A

Synopsis of the organic remains of the Cretaceous group of the United States, illustrated by 19 plates, to which is added an appendix containing a tabular view of the Tertiary fossils hitherto discovered in North America.

Pp. i-vi, 1-88; Appendix, 1-8; and "Additional observations," pp. 4.

Pls. xi, xii contain figures of teeth of sharks. The names of these, given provisionally by L. Agassiz, are found in the "Additional observations."

1835 A

Notice of the fossil teeth of fishes of the United States, the discovery of the Galt in Alabama, and a proposed division of the American Cretaceous group.

Amer. Jour. Sci., xxviii, pp. 276-278.

1842 A

Description of some new species of organic remains of the Cretaceous group of the United States; with a tabular view of the fossils hitherto discovered in this formation.

Jour. Acad. Nat. Sci. Phila., viii, pp. 207-227, pls. x, xi.

Contains description and figure of *Ptychodus mortoni*.

1844 A

Description of the head of a fossil crocodile from the Cretaceous strata of New Jersey.

Proc. Acad. Nat. Sci. Phila., ii, pp. 82-85, with 1 fig. in the text.

Description of *Crocodylus (Gavialis) clavirostris*.

1844 B

Fossil bones of *Mosasaurus*.

Proc. Acad. Nat. Sci. Phila., ii, pp. 132-133.

Announces exhibition of bone of *M. occidentalis*, but no description is given.

1845 A

Description of the head of a fossil crocodile from the Cretaceous strata of New Jersey.

Amer. Jour. Sci., xlviii, pp. 265-267, with 1 fig.

Moseley, H. N., and Lankester, E. R.

1868 A

On the nomenclature of the mammalian teeth and on the dentition of

Moseley, H. N., and Lankester, E. R.—Continued.

of the mole (*Talpa europæa*) and the badger (*Meles taxus*).

Jour. Anat. and Physiol., iii, pp. 72-80, with pl. ii, figs. 5, 6.

Mudge, B. F.

1866 A

Discovery of fossil footmarks in the Liassic (?) formation of Kansas.

Amer. Jour. Sci. (2), xli, pp. 174-176.

Species not identified. Prof. C. H. Hitchcock regards them as artifacts (Hitchcock, C. H., 1869 A., p. 132).

1874 A

Recent discoveries of fossil footprints in Kansas.

Trans. Kansas Acad. Sci., ii, pp. 7-9 (reprint of 1896, pp. 71-74).

Not assigned to genera and species.

1875 A

Rare forms of fish in Kansas.

Trans. Kansas Acad. Sci., iii, p. 22 (reprint of 1896, pp. 121-122).

Refers to genus *Agassizodus* and to an undetermined snout fish.

Müller, Aug.

1853 A

Beobachtungen zur vergleichenden Anatomie der Wirbelsäule.

Archiv f. Anat. Physiol. u. wissensch. Med. Jahrg. 1853, pp. 260-315.

Discusses the homologies of the ribs and flesh bones of fishes, the ribs and hæmal arches of the higher vertebrates, the ear bones of the Cyprinidæ, etc.

Müller, Johannes.

1831 A

Beiträge zur Anatomie und Naturgeschichte der Amphibien.

Tiedemann and Treviranus's Zeitschr. f. Physiologie, iv, pp. 190-275, with pls. xviii-xxii.

Under *Amphibien* Müller here considers both the groups *Batrachia* and *Reptilia*.

1835 A

Vergleichende Anatomie der Myxinoïden, der Cyclostomen mit durchbohrtem Gaumen. Erster Theil, Osteologie und Myologie.

Pp. 1-276, pls. i-ix. Berlin, 1835.

This portion of the anatomy of the Myxinoïds appeared in the Abhandl. Akad. Wissensch. Berlin, for 1834 (1836), pp. 56-340.

Extensive comparisons are made in this work with the structures of the other fishes. A "Nachtrag" is added in the part of the work on neurology published in 1838.

1843 A

Beiträge zur Kenntniss der natürlichen Familien der Knochenfische.

Berichte k. p. Akad. Wissensch. Berlin, 1843, pp. 211-218.

- Müller, Johannes**—Continued. 1846 A
Fernere Bemerkungen über den Bau
der Ganoiden.
Archiv Naturgesch., xii, pp. 190-208.
- 1846 B
Ueber den Bau der Ganoiden.
Berichte k. p. Akad. Wissensch. Berlin,
1846, pp. 67-85.
- 1846 C
Ueber den Bau und die Grenzen der
Ganoiden und über das natürliche Sys-
tem der Fische.
Abhandl. k. p. Akad. Wissensch. Berlin, 1844,
pp. 117-216, with pls. i-vi.
- 1847 A
Basilosaurus.
Amer. Jour. Sci. (2), iv, pp. 421-422.
Extract from a letter sent by J. Müller to A.
Retzius.
See also reference to a letter from Professor
Müller to Dr. Dunglison in Proc. Amer. Philos.
Soc., iv, p. 338. Date of letter Apr. 20, 1847.
- 1847 B
Ueber die von Herrn Koch in Ala-
bama gesammelten fossilen Knochen-
reste seines *Hydrarchus*.
Archiv Anat. Physiol., u. Wissensch. Med.
xiv, pp. 363-377; 378-396.
- 1847 C
Untersuchungen über den Hydrar-
chos.
Berichte k. p. Akad. Wissensch. Berlin, 1847,
pp. 103-114.
Reprinted in Neues Jahrbuch Min., 1847, pp.
623-631.
- 1847 D
Ueber den Bau des Schädels des
Zeuglodon cetoides Ow.
Berichte k. p. Akad. Wissensch. Berlin, 1847,
p. 160.
A brief note.
- 1847 E
Ueber die Wirbelsäule des *Zeuglodon*
cetoides.
Berichte k. p. Akad. Wissensch. Berlin, 1847
pp. 185-200.
- 1849 A
Ueber die fossilen Reste der Zeug-
lodonten von Nordamerika, mit Rück-
sicht auf die europäischen Reste aus
dieser Familie.
Pp. i-iv; 1-38. Folio, with 27 lith. pls.
Berlin, 1849.
- 1851 A
Neue Beiträge zur Kenntniss der
Zeuglodonten.
Monatsber. k. Akad. Wissensch., Berlin,
1851, pp. 236-246.
- Müller, J., and Henle, J.** 1837 A
Ueber die Gattungen der Haifische
und Rochen.
Berichte k. p. Akad. Wissensch. Berlin, i,
pp. 111-118.
- 1837 B
Ueber die Gattungen der Plagiosto-
men.
Arch. Naturgesch. 1837, i, pp. 394-401; 434.
- 1838 A
On the generic characters of cartilag-
inous fishes.
Mag. Nat. Hist. (2), ii, pp. 33-37; 88-92.
- 1841 A
Systematische Beschreibung der
Plagiostomen.
Pp. i-xxii; 1-204, with 60 lith. pls. Berlin,
1841.
- Murie, James.** 1865 A
On the anatomy of a finwhale
(*Physalus antiquorum* Gray) captured
near Gravesend.
Proc. Zool. Soc. Lond., 1865, pp. 206-227,
with 4 woodcuts in text.
- 1870 A
Notes on the anatomy of the prong-
buck, *Antilocapra americana*.
Proc. Zool. Soc. Lond., 1870, pp. 334-368, with
9 woodcuts in the text.
- 1871 A
Researches upon the anatomy of the
Pinnepedia. Part I. On the walrus
(*Trichechus rosmarus* Linn.).
Trans. Zool. Soc. Lond., vii, pp. 411-464, with
pls. ii-iv.
- 1872 A
On the form and structure of the
manatee (*Manatus americanus*).
Trans. Zool. Soc. Lond., viii, pp. 127-202,
with pls. xvii-xxvi.
- 1872 B
On the skin, etc., of the *Rhytina*,
suggested by a recent paper of Dr. A.
Brandt's.
Ann. and Mag. Nat. Hist. (4), ix, pp. 306-313,
with pl. xix.
- 1874 A
Researches upon the anatomy of the
Pinnepedia. Part III. Descriptive
anatomy of the sea lion (*Otaria jubata*).
Trans. Zool. Soc. Lond., viii, pp. 501-582, with
pls. lxxv-lxxxii.
- Nasmyth, Alexander.** 1842 A
On the minute structure of the tusks
of extinct mastodontoid animals.
Proc. Geol. Soc. Lond., iii, pp. 775-780.

- Natural Science.** 1893 A
The restoration of extinct animals.
Natural Science, II, pp. 135-143, with 2 figs.
An anonymous paper. Refers to *Triceratops*,
Ceratopsaurus, *Hesperornis*, *Glyptodon*, etc.
- 1894 A
Armored whales.
Natural Science, IV, pp. 174-176.
An unsigned note.
- Nature.** 1871 A
American notes.
Nature, III, p. 514.
A note on *Elephas primigenius* in Alaska.
- 1873 A
Notes.
Nature, VII, p. 310.
A note on *Dinoceras mirabilis* and the toothed birds.
- 1873 B
On *Dinoceras mirabilis* (Marsh).
Nature, VII, p. 366, with 1 woodcut.
- 1873 C
[Note on Professor Cope's *Loxotrochodon cornutus*, etc.]
Nature, VII, p. 471.
- 1874 A
The "*Brontotheridae*," a new family of fossil mammals.
Nature, IX, p. 227, figs. 1 and 2.
Editorial remarks on Marsh, O. C., 1874 A.
- 1874 B
A complete specimen of a *Paleotherium*.
Nature, IX, pp. 285-286, with 1 fig.
P. magnum discovered near Paris.
- Naumann, Edmund.** 1882 A
Ueber japanische Elephanten der Vorzeit.
Paläontographica, XXVIII, pp. 1-40, with pls. I-VII.
- Negri, Arturo.** 1892 A
Trionici eocenici ed oligocenici del Veneto.
Mem. mat. e fisica Soc. Ital. Sci. (3), VIII, art. 7, pp. 1-53, with pls. I-V.
On pp. 1-8 are presented the literature bearing on fossil *Trionychidae* and a list of known species living and extinct.
- Nehring, Alfred.** 1875 A
Fossile Lemminge und Arvicolen aus dem Diluviallehm von Thiede bei Wolfenbüttel.
Zeitschr. gesammmt. Naturwiss., XLV, (N. F., XI), 1875, pp. 1-28, with pl. I.
Discusses the structure of *Arvicola* and *Myodes*, especially that of the teeth.
- Nehring, Alfred—Continued.** 1886 A
Beiträge zur Kenntniss der *Galictis*-Arten.
Zool. Jahrbücher, Abth. Systemat. Geograph., etc., I, pp. 177-212, with 3 figs. in the text.
- 1893 A
Ueber pleistocäne Hamster-Reste aus Mittel- und Westeuropa.
Jahrbuch k. k. geol. Reichsanstalt, Wien, XLIII, pp. 179-198.
- Newberry, J. S.** 1853 A
Fossil fishes of the cliff limestone of Ohio.
Annals of Science (Cleveland, Ohio), I, pp. 12-13, text figs. 1, 2.
- 1853 B
On the fossil fishes of the cliff limestone of Ohio.
Annals of Science (Cleveland, Ohio), I, pp. 232-233.
Abstract of paper presented at Cleveland meeting of Amer. Assoc. Adv. Sci., 1853.
The remarks are of a general nature and no species are named. See Newberry, J. S., 1856 A.
- 1856 A
On the fossil fishes of the cliff limestone of Ohio.
Proc. Amer. Assoc. Adv. Sci., 7th meeting, Cleveland, 1853, pp. 166-167.
Same as Newberry, J. S., 1853 B.
- 1856 B
Description of several new genera and species of fossil fishes from the Carboniferous strata of Ohio.
Proc. Acad. Nat. Sci. Phila., VIII, pp. 96-100.
- 1857 A
New fossil fishes from the Devonian rocks of Ohio.
Amer. Jour. Sci. (2), XXIV, pp. 147-149.
Extracted from Bulletin of National Institute.
- 1857 B
[Letter read changing the genus *Me-kolepis* to *Eurylepis*, the former being preoccupied.]
Proc. Acad. Nat. Sci. Phila., 1857, p. 150.
- 1857 C
Fossil fishes from the Devonian of Ohio.
Proc. National Institute, Washington, D. C. (N. S.), I, pp. 119-126, with 1 fig. in the text.
There appears to have been a reprint of this paper with its own pagination.
- 1862 A
Notes on American fossil fishes.
Amer. Jour. Sci. (2), XXXIV, pp. 78-78, with figs. in the text.

Newberry, J. S.—Continued. 1868 A

On some fossil reptiles and fishes from the Carboniferous strata of Ohio, Kentucky, and Illinois.

Proc. Amer. Assoc. Adv. Sci., 16th meeting, Burlington, Vt., 1867, pp. 144-146. Abstract.

1868 B

On some remarkable fossil fishes discovered by Rev. H. Herzer, in the Black shale (Devonian) at Delaware, Ohio.

Proc. Amer. Assoc. Adv. Sci., 15th meeting, Buffalo, 1867, pp. 146-147, with two woodcuts. Describes *Dinichthys herzeri*.

1870 A

The geological position of the remains of elephant and mastodon in North America.

Proc. Lyc. Nat. Hist. N. Y., 1, pp. 77-84.

1870 B

Fossil fishes from the Devonian rocks of Ohio.

Proc. Lyc. Nat. Hist. N. Y., 1, pp. 152-153.

1870 C

Remarks on the fossil skull of a walrus found at Long Branch.

Proc. Lyc. Nat. Hist. N. Y., 1, p. 75.

Recorded as belonging to *Trichechus rosmarus*.

1871 A

Fossils from the phosphatic beds of South Carolina.

Proc. Lyc. Nat. Hist. N. Y., 1, pp. 240-241.

Brief mention of a few species of vertebrates.

1873 A

The classification and geological distribution of our fossil fishes.

Report. Geol. Surv. Ohio, 1, Part II, Palaeontology, pp. 245-355, with pls. xxiv-xl.

1873 B

Notes on the genus *Conchiopsis* Cope.

Proc. Acad. Nat. Sci. Phila., 1873, pp. 425-426.

1873 C

Remarks reviewing the history of the class of fishes as traced on the older rocks of North America.

Proc. Lyc. Nat. Hist. N. Y., 2d ser., No. 2, March to June, pp. 25-28.

1873 D

Specimens of *Celacanthus elegans* Newb. from the Coal-measures of Linton, Ohio.

Proc. Lyc. Nat. Hist. N. Y., 2d ser., No. 2, March to June, pp. 30-32.

Some general remarks on *Celacanthus*; no description of *C. elegans*.

Newberry, J. S.—Continued. 1874 A

[Remarks on *Castoroides ohioensis*].

Proc. Lyc. Nat. Hist. N. Y., 2d ser., No. 4, Jan. to June, pp. 92-93.

1874 B

Description of the Linton coal bed.

Proc. Lyc. Nat. Hist. N. Y., 2d ser., No. 4, Jan. to June, pp. 134-135.

Contains mention of four genera of fishes found there.

1874 C

Account of a second species of *Dinichthys* recently discovered in Ohio.

Proc. Lyc. Nat. Hist. N. Y., 2d ser., No. 4, Jan. to June, pp. 149-151.

Gives a description (not the earliest) of *Dinichthys terrelli*.

1874 D

Skull of a walrus (*Trichechus rosmarus*).

Proc. Lyc. Nat. Hist. N. Y., 2d ser., No. 3, Oct. to Dec., 1873, p. 71.

Identification of a skull found in Accomac County, Va., a drawing of which was presented by Dr. R. P. Stevens.

1874 E

Remarks on *Celacanthus elegans* and on Prof. Cope's genera *Conchiopsis* and *Peplorhina*.

Proc. Lyc. Nat. Hist. N. Y., 2d ser., No. 3, Oct. to Dec., 1873, pp. 76-77.

1874 F

[Remarks on skulls of *Dicotyles compressus* found at Columbus, Ohio.]

Proc. Lyc. Nat. Hist. N. Y., 2d ser., No. 3, Oct. to Dec., 1873, pp. 77-78.

1875 A

Descriptions of fossil fishes.

Report Geol. Surv. Ohio, 11. Part II, Palaeontology, pp. 1-64, with pls. liv-lxx.

Contains descriptions and figures of the fossil fishes of the Devonian and the Carboniferous formations of Ohio.

1876 A

Descriptions of the Carboniferous and Triassic fossils collected on the San Juan Exploring Expedition under Capt. J. N. Macomb, U. S. Engineers.

Report of the Exploring Expedition from Santa Fe, N. Mex., to the junction of the Grand and Green rivers of the Great Colorado of the West, in 1859, under the command of Capt. J. N. Macomb, Washington, 1876, pp. 135-148, with pl. iii, figs. 1, 1a; 2-2f.

Describes *Deltodus mercurii* Newb., *Pychochodus whipplei* Marcou, and mentions finding of *Lamna texana* Roem., and *Oxyrhina mantelli* Ag.

Newberry, J. S.—Continued. 1877 A

Rhynchodus excavatus.

Geology of Wisconsin, survey of 1873-1877, II, p. 397.

1878 A

Descriptions of new palæozoic fishes.

Ann. N. Y. Acad. Sci., I, pp. 188-192.

Said to have been issued in 1879. Describes *Diplognathus mirabilis*, *Glyptopomus sayrei*, *Archæobatis gigas*, gen. nov., *Dinichthys minor*, *Ctenacanthus compressus*, *Rhynchodus occidentalis*, and *R. excavatus*.

1878 B

Description of new fossil fishes from the Trias of New Jersey and Connecticut.

Ann. N. Y. Acad. Sci., I, pp. 127-128.

Describes *Diplurus longicaudatus* gen. et sp. nov. and *Pycholepis marshi* sp. nov.

1879 A

[Letter to Prof. John Collett, describing a collection of remains of fossil fishes collected in Indiana.]

Report State geologist of Indiana for the years 1876, 1877, 1878. Indianapolis, Ind., 1879, pp. 341-349.

1883 A

Some interesting remains of fossil fishes recently discovered.

Trans. N. Y. Acad. Sci., II, pp. 144-147.

Describes new genus *Mylostoma* and the new species *M. variabilis* and *M. terrelli*.

1883 B

The relations of *Dinichthys*, as shown by complete crania recently discovered by Mr. Jay Terrell in the Huron shale of Ohio.

Trans. N. Y. Acad. Sci., III, p. 20.

A brief abstract.

1884 A

On the recent discovery of new and remarkable fossil fishes in the Carboniferous and Devonian rocks of Ohio and Indiana.

Geol. Magazine (3), I, pp. 523-524.

1884 B

Ctenacanthus wrighti n. sp.

Thirty-fifth Ann. Rept. N. Y. State Mus. Nat. Hist., p. 206, pl. 16, fig. 12.

1885 A

On the recent discovery of new and remarkable fossil fishes in the Carboniferous and Devonian rocks of Ohio and Indiana.

Report Brit. Assoc. Adv. Sci., 54th meeting, Montreal, 1884, pp. 724-725.

Same as Newberry, J. S., 1884 A.

Newberry, J. S.—Continued. 1885 B

Description of some gigantic Placoderm fishes recently discovered in the Devonian of Ohio.

Trans. N. Y. Acad. Sci., v, pp. 25-28.

1885 C

Descriptions of some peculiar screw-like fossils from the Chemung rocks.

Ann. N. Y. Acad. Sci., xviii, pp. 217-220, with pl. xviii.

Describes new genus *Spiraxia*, with species *major* and *randalli*.

1885 D

Sur les restes de grands poissons fossils récemment découverts dans les roches devoniennes de l'Amerique du Nord.

Compte rend. Cong. Géol. Internat. Berlin, 1886, pp. 273-276.

Cited from a reprint with pp. 11-14.

1887 A

The fauna and flora of the Trias of New Jersey and the Connecticut Valley.

Trans. N. Y. Acad. Sci., vi, pp. 124-128.

Contains a list of the fishes found in the Triassic rocks.

1887 B

Ceolosteus, a new genus of fishes from the Lower Carboniferous limestones of Illinois.

Trans. N. Y. Acad. Sci., vi, pp. 137-138.

Describes *Ceolosteus ferox* gen. et sp. nov.

1887 C

Description of a new species of *Titanichthys*.

Trans. N. Y. Acad. Sci., vi, pp. 164-166.

An abstract describing *Titanichthys clarkii*.

1888 A

Fossil fishes and fossil plants of the Triassic rocks of New Jersey and the Connecticut valley.

Mon. U. S. Geol. Surv., xiv, pp. I-xiv, 1-162, with pls. I-xxvi.

For review of by A. S. Woodward, see Nature, xliii, pp. 366-367.

1888 B

On the structure and relations of *Edestus*, with a description of a gigantic new species.

Ann. N. Y. Acad. Sci., IV, pp. 113-122, with pls. IV-vi.

Describes *Edestus giganteus* sp. nov.

1888 C

Note on a new species of *Rhizodus*, from the St. Louis limestone at Alton, Ill.

Trans. N. Y. Acad. Sci., vii, p. 165.

Describes *Rhizodus anceps* sp. nov.

Newberry, J. S.—Continued. 1888 D
On the fossil fishes of the Erie shale of Ohio.

Trans. N. Y. Acad. Sci., vii, pp. 178-180.

An abstract presenting descriptions of *Cladodus kepleri*, *Actinophorus clarkii*, *Dinichthys curtus*, *D. tuberculatus*.

1889 A
The Paleozoic fishes of North America.

Mon. U. S. Geol. Surv., J. W. Powell, Director, xvi, pp. 1-340, pls. 1-111.

Although the imprint of the title-page of this monograph gives 1889 as year of printing, it was not issued until August, 1890.

A review of this monograph by A. S. Woodward appeared in *Nature*, xliii, p. 146, 1890.

1890 A
On the genus *Oracanthus* Ag.

Trans. N. Y. Acad. Sci., ix, pp. 131-133.

Abstract.

1892 A
American Devonian fishes found in Belgium.

Amer. Naturalist, xxvi, p. 1025.

From Ann. Soc. Géol. Belgique, xvi.

Dinichthys pustulosus (= *D. tuberculatus*) and *D. terrelli* are reported from Belgium. The determinations were made by Dr. Newberry. The paper above quoted is a translation of a paper by Lohest.

1897 A
New species and a new genus of American Palæozoic fishes, together with notes on the genera *Oracanthus*, *Dactylodus*, *Polyrhizodus*, *Sandalodus*, *Deltodus*.

Trans. N. Y. Acad. Sci., xvi, pp. 282-304, with pls. xxii-xxvi. Edited by Bashford Dean.

In this paper there are described 16 new species, most of them figured. The new genus *Stenognathus* is proposed, having as type *Dinichthys corrugatus*.

Newberry, J. S., and Worthen, A. H.

1866 A
Descriptions of new species of vertebrates, mainly from the Subcarboniferous limestone and Coal Measures of Illinois.

Geol. Surv. Illinois, A. H. Worthen, Director, ii, 1866, pp. 9-134, pls. 1-xlii.

1870 A
Descriptions of, fossil vertebrates.

Geol. Surv. Illinois, A. H. Worthen, Director, iv, 1870, pp. 347-374, with pls. i-iv.

Contains descriptions and figures of fossil fishes from the Carboniferous and Subcarboniferous formations of Illinois.

Bull. 179—12

Newton, Alfred. 1861 A

Abstract of Mr. J. Wolley's researches in Iceland respecting the gare-fowl, or great auk (*Alca impennis*, Linn.).

The Ibis (1), iii, pp. 374-399.

1868 A
Remarks on Professor Huxley's classification of birds.

The Ibis (2), iv, pp. 85-96.

1870 A
On existing remains of the gare-fowl (*Alca impennis*).

The Ibis (2), vi, pp. 257-261.

1875 A
Birds.

Encyclop. Brit., ed. 9, iii, pp. 728-778, with figs. 38-49.

This portion of the article on birds is devoted mainly to avian biology. Pages 728-736 deal briefly with fossil birds, subfossil birds, birds recently exterminated, and birds partially exterminated.

1879 A
Gare-fowl.

Encyclop. Brit., ed. 9, x, pp. 78-80, with 1 fig. The author cites the principal literature bearing on the history and structure of this bird.

1896 A
A dictionary of birds. By Alfred Newton, assisted by Hans Gadow; with contributions from Richard Lydekker, B. A., F. R. S., Charles S. Roy, M. A., F. R. S., and Robert Shufeldt, M. D., late United States Army.

London, Adam and Charles Black, 1893-1896, pp. i-xii; 1-1088, with numerous text figs.

In the introduction (pp. 1-124) Newton discusses the history of the science of ornithology and schemes of classification. Gadow has articles on the skeleton.

Newton, E. T. 1877 A
On the remains of *Hypsodon*, *Portheus*, and *Ichthyodectes* from British Cretaceous strata, with descriptions of new species.

Quart. Jour. Geol. Soc., xxxiii, pp. 505-523, with pl. xxii and 1 text figs.

1878 A
Remarks on *Saurocephalus*, and on the species which have been referred to that genus.

Quart. Jour. Geol. Soc., xxxiv, pp. 786-796. Contains list of genera and species which have been referred to *Saurocephalus*, etc., and bibliography.

- Newton, E. T.**—Continued. 1878 B
Description of a new fish from the lower Chalk of Dover.
Quart. Jour. Geol. Soc., xxxiv, pp. 439-446, with pl. xix.
Discusses the genera *Portheus*, *Daptinus*, and *Ichthyodectes*, and has description and figures of *Daptinus intermedius*.
- 1878 C
The chimæroid fishes of the British Cretaceous rocks.
Mem. Geol. Surv. United Kingdom, Mon. iv, pp. 1-50, with pls. i-xii.
- 1886 A
On the remains of a gigantic species of bird (*Gastornis klaassenii* n. sp.), from the lower Eocene beds near Croydon.
Trans. Zool. Soc. Lond., xii, pp. 142-160, with pls. xxviii, xxix.
- 1888 A
Notes on pterodactyls.
Proc. Geologists' Assoc., x, pp. 406-424, with 13 figs. in the text.
- 1889 A
A contribution to the history of Eocene Siluroid fishes.
Proc. Zool. Soc. Lond., 1889, pp. 201-207, with pl. xxi.
Contains on pp. 206-207 a list of papers on fossil Siluroid fishes.
- 1889 B
On the skull, brain, and auditory organ of a new species of pterosaurian (*Scaphognathus purdoni*) from the Upper Lias, near Whitby, Yorkshire.
Philos. Trans. Royal Soc. Lond., clxxix, pp. 503-537, pls. lxxvii, lxxviii.
- 1892 A
Note on a new species of *Onychodus* from the lower Old Red sandstone of Fairfax.
Geol. Magazine (3), ix, pp. 51-52, with 1 fig. in the text.
Contains list of six known species of *Onychodus*.
- 1899 A
On the remains of *Amia*, from Oligocene strata in the Isle of Wight.
Quart. Jour. Geol. Soc., lv, pp. 1-10, with pl. i.
Describes two new species and gives list of known species.
- Nicholson, Henry Allen, and Lydekker, Richard.** 1889 A
A manual of palæontology for the use of students, with a general intro-
- Nicholson, Henry Allen, and Lydekker, Richard.**—Continued.
duction on the principles of palæontology. Third edition.
Vol. II, pp. i-xi, 889-1624, with figs. 813-1354.
Vol. I of this work treats of the fossil invertebrates; pp. 1475-1560 of vol. II treats of fossil plants.
- Nickerson, W. S.** 1893 A
The development of the scales of *Lepidosteus*.
Bull. Mus. Comp. Zool., xxiv, pp. 115-139, with pls. i-iv.
- Nitsche, H.** 1891 A
Studien über das Elchwild, *Cervus alces* L. A. Zahnbildung. B. Geweihbildung. C. Bau der Läufe.
Zoolog. Anzeiger, xiv, pp. 181-188, 189-191.
- 1899 A
Ueber die Hirschgeweihe mit mehr als zwei Stangen, und die Hörner Wiederkäufer im Allgemeinen.
Proc. 4th Internat. Cong. Zoology, Cambridge, Eng., 1898, pp. 185-187.
- Noack, Th.** 1894 A
Bemerkungen über die Caniden.
Der Zoolog. Garten, 1894, pp. 165-170; 195-198; 241-246; 260-265.
- Nodot, L.** 1855 A
Description d'un nouveau genre d'Édentaté fossile renfermant plusieurs espèces voisines des glyptodontes et classification méthodique de treize espèces appartenant à ces deux genres.
Comptes rend. Acad. Sci. Paris, xli, pt. 2, pp. 335-338.
Describes new genus *Schistopleurum*.
- Noetling, Fritz.** 1885 A
Die Fauna des samländischen Tertiärs.
Abhandl. zur Specialkarte von Preussen und den Thüringischen Staaten, vi, pt. III, pp. 1-107, with pls. i-xi.
- Nopcsa, Franz B.** 1899 A
Dinosaurierreste aus Siebenbürgen (Schädel von *Limnosaurus transylvanicus* nov. gen. et spec.).
Denkschr. k. Akad. Wissensch. Wien, math.-naturw. Cl., lxxviii, pp. 555-59, with pls. i-vi.
Contains a list of Hadrosaurs.
- Nordmann, Alex.** 1862 A
Beiträge zur Kenntniss des Knochenbaues der *Rhytina stelleri*.
Acta Soc. Sci. Fennicæ, vii, pp. 1-33, with pls. i-v.

- Norwood, J. G., and Owen, D. D.** 1846 A
Description of a new fossil fish from the Palæozoic rocks of Indiana.
Amer. Jour. Sci. (2), i, pp. 367-371, with 2 woodcuts.
- 1846 B
Description of *Macropetalichthys raphidolabis*.
Proc. Boston Soc. Nat. Hist. ii, p. 116.
- Oldham, Thomas.** 1859 A
On some fossil fish-teeth of the genus *Ceratodus*, from Maledi, south of Nagpur.
Mem. Geol. Surv. India, i, pp. 295-309, pls. xiv-xvi.
- Orr, Henry.** 1885 A
Beitrag zur Phylogenie der Ganoïden. Inaugural-Dissertation, Jena.
Pp. 1-37, with 2 figs. in the text.
- Orton, Edw.** 1891 A
On the occurrence of *Megalonyx jefferisoni* in central Ohio.
Bull. Geol. Soc. Amer., ii, p. 635.
- Orton, James.** 1869 A
The great auk.
Amer. Naturalist, iii, pp. 539-542, with 1 fig.
- Osawa, Gakutaro.** 1898 A
Verhandl. Anat. Gesellsch., 12th meeting, Kiel, 1898, pp. 100-106, with 4 figs. in the text.
- Osborn, H. F.** 1881 A
A memoir upon *Loxolophodon* and *Ulnatherium*, two genera of the sub-order *Dinocerata*.
Contrib. E. M. Mus. Geol. and Arch. of the College of New Jersey [Princeton], i, pp. 1-54, pls. i-iv, and map.
Notices of this paper, with 2 figs. of *L. cornutus*, appeared in Amer. Naturalist, xv, p. 888; Amer. Jour. Sci., xxii, p. 235.
- 1883 A
Achenodon, an Eocene bunodont.
Contrib. E. M. Mus. Geol. and Arch.; Princeton Coll., Bull. No. 3, pp. 23-35, with pl. vi, and 8 text figs.
- 1886 A
A new mammal from the American Triassic.
Science, viii, p. 540, with 1 woodcut.
Describes new genus and species, *Microconodon tenuirostris*.
- 1886 B
Observations upon the Triassic mammals *Dromatherium* and *Microconodon*.
Proc. Acad. Nat. Sci. Phila., 1886, pp. 359-363, with 4 woodcuts in the text.
- Osborn, H. F.—Continued.** 1887 A
A pineal eye in the Mesozoic mammals.
Science, ix, p. 92.
- 1887 B
The pineal eye in *Tritylodon*.
Science, ix, p. 114, with 1 woodcut.
- 1887 C
No parietal foramen in *Tritylodon*.
Science, ix, p. 538.
- 1887 D
The origin of the tritubercular type of mammalian dentition.
Science, x, p. 300.
- 1887 E
The Triassic mammals *Dromatherium* and *Microconodon*.
Proc. Amer. Philos. Soc., xxiv, pp. 109-111, with 1 pl.
- 1887 F
On the structure and classification of the Mesozoic *Mammalia*.
Proc. Acad. Nat. Sci. Phila., 1887, pp. 282-292, with 3 figs. in the text.
Review of, in Geol. Magazine, 1888, v, p. 132.
Also in Archiv f. Anthropol., xix, pp. 135-141.
- 1887 G
Note on the genus *Athrodon*.
Amer. Naturalist, xxi, p. 1020.
Athrodon preoccupied, *Kurtodon* substituted.
- 1888 A
Additional observations upon the structure and classification of the Mesozoic *Mammalia*.
Proc. Acad. Nat. Sci. Phila., 1888, pp. 292-301, with 2 figs. in the text.
- 1888 B
The mylohyoid groove in the Mesozoic and recent *Mammalia*.
Amer. Naturalist, xxii, pp. 75-76.
- 1888 C
A review of Mr. Lydekker's arrangement of the Mesozoic *Mammalia*.
Amer. Naturalist, xxii, pp. 232-236.
- 1888 D
Chalicotherium and *Macrotherium*.
Amer. Naturalist, xxii, pp. 728-729.
- 1888 E
The nomenclature of the mammalian molar cusps.
Amer. Naturalist, xxii, pp. 926-928.
- 1888 F
The evolution of the mammalian molars to and from the tritubercular type.
Amer. Naturalist, xxii, pp. 1067-1079, pls. xv, xvi, and 1 woodcut.
Reviewed by M. Schlosser in Archiv f. Anthropol., xix, pp. 157-159.

- Osborn, H. F.—Continued.** 1888 G
On the structure and classification of the Mesozoic *Mammalia*.
Jour. Acad. Nat. Sci. Phila. (2), ix, pp. 186-255, pls. viii, ix, and 30 figs. in the text.
For review see Nature, xxxviii, pp. 611-614; Amer. Naturalist, xxii, pp. 723-724. Also, H. Winge, 1893 C, p. 117.

1888 H
The characters and phylogeny of the *Amblypoda*.
Science (2), vii, p. 226.
Abstract of paper read before Amer. Morpholog. Society.

1889 A
The evolution of the mammalian teeth to and from the tritubercular type.

Report Brit. Assoc. Adv. Sci., 56th meeting, Bath, 1888, p. 660.

Abstract of paper read before Brit. Assoc. Adv. Sci., and published in full in Amer. Naturalist, 1888, p. 1067.

1890 A
The paleontological evidence for the transmission of acquired characters.

Science, xv, pp. 110-111.
See Amer. Naturalist, xxiii, pp. 559-566. Nature, xli, pp. 227-228; Rep. Brit. Assoc. Adv. Sci. for 1889.

Discusses the evolution of the teeth of *Mammalia*.

1890 B
The paleontological evidence for the transmission of acquired characters.

Proc. Amer. Assoc. Adv. Sci., 38th meeting, Toronto, 1889, pp. 273-276.

1890 C
A review of the Cernaysian *Mammalia*.

Proc. Acad. Nat. Sci. Phila., 1890, pp. 51-62, with 6 figs. in text.

Review by M. Schlosser in Archiv f. Anthrop., xx, pp. 111-112.

1890 D
The *Mammalia* of the Uinta formation. Part III. The *Perissodactyla*. Part IV. The evolution of the ungulate foot.

Trans. Amer. Philos. Soc., xvi, pp. 505-572, with pls. viii-xi, and 12 figs. in the text.

This forms a portion of a joint paper by Professors Scott and Osborn. See Scott, W. B., 1890 A, and Scott and Osborn, 1890 A.

For review by R. Lydekker, see Nature, xliii, p. 177.

1891 A
A review of the Cretaceous *Mammalia*.

Proc. Acad. Nat. Sci. Phila., 1891, pp. 124-135, with 8 figs. in the text.

See also Amer. Naturalist, xxv, pp. 595-611, figs. 1-12.

Osborn, H. F.—Continued. 1891 B
A review of the discovery of the Cretaceous *Mammalia*.

Amer. Naturalist, xxv, pp. 44-45.

Abstract of a review of papers here entered under titles of Marsh, O. C., 1889 D, and Marsh, O. C., 1889 F.

1891 C
A reply to Professor Marsh's "Note on Mesozoic *Mammalia*."

Amer. Naturalist, xxv, pp. 775-783, with 1 fig. in the text.

Review by M. Schlosser in Archiv f. Anthrop., xxii, p. 118.

1891 D
Meniscotheriidae and *Chalicotheriidae*.
Amer. Naturalist, xxv, pp. 911-912.

1891 E
A review of the "Discovery of the Cretaceous *Mammalia*."

Amer. Naturalist, xxv, pp. 595-611, with 12 figs. in the text.

This is a review of papers by Professor Marsh, and is a reprint, with slight changes and additions, of Osborn, H. F., 1891 A.

Abstract in Archiv f. Anthrop., xxii, pp. 117-118.

1892 A
Palzonictis in the American Lower Eocene.
Nature, xli, p. 30.

1892 B
What is *Lophiodon*?
Amer. Naturalist, xxvi, pp. 763-765.

1892 C
The ancestry of *Chalicotherium*.
Science, xix, p. 276.

1892 D
A reply to Professor Marsh's "Note on Mesozoic *Mammalia*."

Proc. Amer. Assoc. Adv. Sci., 40th meeting, Washington, 1891, p. 290.

Abstract of Osborn, H. F., 1891 C.

1892 E
Nomenclature of mammalian molar cusps.
Amer. Naturalist, xxvi, pp. 436-437.

1892 F
The contemporary evolution of man.
Amer. Naturalist, xxvi, pp. 455-481, 537-567.
Reviewed by M. Schlosser in Archiv f. Anthrop., xxiii, p. 162.

1892 G
Is *Meniscotherium* a member of the *Chalicotherioidea*?

Amer. Naturalist, xxvi, pp. 506-509, with 4 figs. in the text.

- Osborn, H. F.—Continued.** 1892 H
Odontogenesis in the ungulates.
Amer. Naturalist, xxvi, pp. 621-623.
A review of paper by Julius Taeker, in
Morpholog. Jahrbuch, xv, p. 308.
- 1892 I
The history and homologies of the
human molar cusps.
Anatom. Anzeiger, vii, pp. 740-747, with 12
text figs.
A review of the contributions of Dr. A.
Fleischmann, Dr. Julius Taeker, and Dr. Carl
Röse.
- 1893 A
The rise of the *Mammalia* in North
America.
Amer. Jour. Sci., (3) xlii, pp. 379-392; 448-
466, with pl. xi and 5 figs. in the text.
For review of this paper, see Nature, xlix,
pp. 235 and 267.
- 1893 B
Fossil mammals of the Upper Creta-
ceous beds: I. The multituberculates;
II. The trituberculates; III. Faunal
relations of the Laramie mammals.
Bull. Amer. Mus. Nat. Hist., v, pp. 311-330,
with pls. vii, viii, and 3 text figs.
Abstract of, by M. Schlosser, in Archiv f.
Anthrop., xxiv, pp. 126-127.
- 1893 C
Aceratherium tridactylum from the
Lower Miocene of Dakota.
Bull. Amer. Mus. Nat. Hist., v, pp. 85-86.
- 1893 D
The rise of the *Mammalia* in North
America.
Studies from the biological laboratories of
Columbia College: Zoology. Ginn & Co., Bos-
ton, 1893. Pp. 1-45, with 1 pl. and 5 text figs.
Vice-presidential address before the Amer.
Assoc. for the Advance of Science, Madison,
Wis., Aug. 17, 1893. Same as Osborn, 1893 A.
Abstract of, by M. Schlosser, in Archiv f.
Anthrop., xxiv, pp. 123-124.
- 1893 E
The collection of fossil mammals in
the American Museum of Natural His-
tory, New York.
Science, xxi, p. 261.
- 1893 F
The *Ancylopoda*, *Chalicotherium*, and
Artionyx.
Amer. Naturalist, xxvii, pp. 118-133, with 4
figs. in the text.
Abstract of, by M. Schlosser, in Archiv f.
Anthrop., xxiv, pp. 125-126.
- 1893 G
Recent researches upon the suc-
cession of the teeth in mammals.
Amer. Naturalist, xxvii, pp. 493-508.
Noticed by M. Schlosser, in Archiv f. An-
throp., xxiv, p. 136.
- Osborn, H. F.—Continued.** 1893 H
Sur la découverte du *Palæonictis* en
Amérique.
Bull. Soc. Géol. France (3), xx, pp. 434-436,
with 1 fig. in the text.
Describes the new species *P. occidentalis* Osb.
- 1893 I
Protoceras, the new artiodactyle.
Nature, xlvii, pp. 321-322, with 8 figs. in the
text.
- 1893 J
Artionyx, a clawed artiodactyle.
Nature, xlvii, pp. 610-611, with 3 figs. in the
text.
- 1893 K
Foot of *Artionyx*.
Anatom. Anzeiger, viii, p. 368.
Report of meeting of N. Y. Acad. Sci.
- 1893 L
Protoceras celer.
Anatom. Anzeiger, viii, pp. 127-128.
In reports of meeting of N. Y. Acad. Sci.
- 1894 A
A division of the Eutherian mammals
into the *Mesoplacentalia* and *Cenoplacen-
talia*.
Trans. N. Y. Acad. Sci., xiii, pp. 234-237.
- 1895 A
Fossil mammals of the Uinta Basin.
Bull. Amer. Mus. Nat. Hist., vii, pp. 71-106,
with 17 figs. in the text.
Reviewed by M. Schlosser in Archiv f.
Anthrop., xxv., pp. 181-182.
- 1895 B
Vertebrate paleontology in the Amer-
ican Museum.
Science (2), ii, pp. 178-179.
- 1895 C
The history of the cusps of the human
molar teeth.
Internat. Dental Jour., 1895.
Quoted from reprint, pp. 1-14, with pl. AA
and text figs. A-D.
- 1896 A
Titanotheres of the American Museum
of Natural History.
Amer. Naturalist, xxx, p. 162.
Secretary's report of the session of the New
York Academy of Science, Dec. 9, 1895. Also
found in Anatom. Anzeiger, xi, p. 512 and
Zoolog. Anzeiger, xix, p. 48.
- 1896 B
The cranial evolution of *Titanothe-
rium*.
Bull. Amer. Mus. Nat. Hist., viii, pp. 157-197,
with pls. iii and iv and 15 figs. in the text.
Notice of this paper by M. Schlosser in Neues
Jahrb. Mineral., 1899, ii, pp. 319-321, and in
Archiv f. Anthrop., xxv, p. 216.

Osborn, H. F.—Continued. 1896 C
Prehistoric quadrupeds of the Rockies.
The Century Magazine, III, pp. 706-715, with
8 engravings illustrating restorations of fossil
mammals.

1897 A
Lambdaotherium not related to *Palaeosyops* or the Titanotheres.

Amer. Naturalist, xxxi, pp. 55-57.

1897 B
Reconstruction of *Phenacodus primævus*, the most primitive ungulate.

Amer. Naturalist, xxxi, p. 980.

A synopsis of a paper read before the Brit. Assoc. Adv. Sci. at Toronto, 1897.

An abstract of this paper is found on p. 684 of the report of the meeting.

1897 C
Trituberculy: A review dedicated to the late Professor Cope.

Amer. Naturalist, xxxi, pp. 993-1016.

Appended is a bibliography of the subject. The paper is reviewed by M. Schlosser in Neues Jahrb. Mineral, 1901, i, p. 151.

1897 D
Report on the phylogeny of the early Eocene Titanotheres.

Anatom. Anzeiger, xlii, p. 551.

Report of paper read before New York Biological Society, Apr. 5, 1897. See also Science (2), vi, p. 107.

1897 E
The origin of the teeth of the *Mammalia*.

Science (2), v, pp. 576-577.

1897 F
The *Ganodonta*, or primitive Edentates with enameled teeth.

Science (2), v, pp. 611-612.

1897 G
The Huerfano Lake basin, southern Colorado, and its Wind River and Bridger fauna.

Bull. Amer. Mus. Nat. Hist., ix, pp. 247-258.

Brief review in Neues Jahrb. Mineral., 1900, p. 132.

1898 A
Paleontological problems.

Science (2), vii, pp. 145-147.

1898 B
Origin of the *Mammalia*.

Science (2), vii, pp. 176-178.

Discussion before Amer. Soc. Naturalists.

1898 C
A complete skeleton of *Teleoceras*, the true rhinoceros from the upper Miocene of Kansas.

Science (2), vii, pp. 554-557, with 1 fig. in the text.

Osborn, H. F.—Continued. 1898 D
The life and works of Cope, illustrating the training of a naturalist and the essential characteristics of a great comparative anatomist.

Preface to second edition of Professor Cope's Syllabus of Lectures on the Vertebrata, pp. iii-xxxv.

1898 E
A complete skeleton of *Teleoceras fossiger*. Notes upon the growth and sexual characters of this species.

Bull. Amer. Mus. Nat. Hist., x, pp. 51-59, with pls iv, iv A.

1898 F
A complete skeleton of *Coryphodon radians*.

Bull. Amer. Mus. Nat. Hist., x, pp. 81-91, with pl. x and 2 figs. in the text.

1898 G
Remounted skeleton of *Phenacodus primævus*. Comparison with *Euprotogonia*.

Bull. Mus. Nat. Hist., x, pp. 159-164, with pl. xii and 4 text figs.

1898 H
Evolution of the *Amblypoda*. Part I. *Taligrada* and *Pantodonta*.

Bull. Amer. Mus. Nat. Hist., x, pp. 169-218, with 29 figs. in the text.

1898 I
The extinct rhinoceroses.

Mem. Amer. Mus. Nat. Hist., i, pp. 75-164, with pls. xlii-xx, with 49 figs. in the text.

Pp. 121-125 of this memoir are devoted to the bibliography of the rhinoceroses.

A notice of this memoir is found in Natural Science, 1898, xlii, pp. 151-159.

1898 J
Additional characters of the great herbivorous dinosaur *Camarasaurus*.

Bull. Amer. Mus. Nat. Hist., x, pp. 219-233, with 13 figs. in the text.

1898 K
Paleontological notes.

Science (2), vii, pp. 164-165.

1898 L
A placental marsupial.

Science (2), vii, pp. 454-456, with 1 fig. in the text.

1898 M
A complete skeleton of *Coryphodon radians*. Notes upon the locomotion of this animal.

Science (2), vii, pp. 585-588, with 1 fig. in the text.

- Osborn, H. F.**—Continued. 1898 N
Models of extinct vertebrates.
Science (2), vii, pp. 841-845, with text figs. 1-4.
- 1898 O
[Origin of *Mammalia*.]
Science (2), viii, p. 358.
Abstract of remarks at International Congress of Zoologists at Cambridge, England.
- 1898 P
On the presence of a frontal horn in *Aceratherium incisivum* Kaup.
Science (2), viii, p. 880.
A brief abstract. *Aceratherium* not a hornless rhinoceros.
- 1898 Q
Casts, models, photographs, and restorations of fossil vertebrates.
Pamphlet issued by Department of Vertebrate Palaeontology, Amer. Mus. Nat. Hist., pp. 1-21, with 7 illus.
Remarks on this pamphlet are found in Natural Science, 1898, xiii, p. 230.
- 1898 R
The origin of *Mammalia*.
Amer. Naturalist, xxxii, pp. 309-334, with 14 text figs.
Reviewed in Neues Jahrb. Mineral., 1900, ii, pp. 125-138.
- 1899 A
Frontal horn on *Aceratherium incisivum*. Relation of this type to *Elasmotherium*.
Science (2), ix, pp. 161-162, with pl. i.
- 1899 B
The origin of mammals.
Amer. Jour. Sci. (4), vii, pp. 92-96.
- 1899 C
Additional characters of *Diplodocus*.
Science (2), ix, pp. 315-316.
- 1899 D
A complete mosasaur skeleton, osseous and cartilaginous.
Mem. Amer. Mus. Nat. Hist., i, pp. 167-188, with pls. xxi-xxiii and 13 text figs.
See also, for extract from this paper, Science (2), x, 1899, pp. 919-925, figs. 1-3; for review, Neues Jahrb. Mineral., 1901, i, p. 156.
- 1899 E
A skeleton of *Diplodocus*.
Mem. Amer. Mus. Nat. Hist., i, pp. 191-214, with pls. xxiv-xxviii and 14 text figs.
An extract of this paper was published in Science (2), x, pp. 870-874, with fig. 1.
Reviewed in Neues Jahrb. Mineral., 1901, i, p. 156.
- Osborn, H. F.**—Continued. 1899 F
Upon the structure of *Tylosaurus dyspeltor*, including the cartilaginous sternum.
Science (2), ix, pp. 912-913.
Brief synopsis of paper read before New York Academy of Sciences. See Osborn, H. F., 1899 D.
- 1899 G
The Newburgh mastodon.
Science (2), x, p. 539.
- 1899 H
Fore and hind limbs of carnivorous dinosaurs from the Jurassic of Wyoming. Dinosaur contributions, No. 3.
Bull. Amer. Mus. Nat. Hist., xli, pp. 161-172, with 7 figs. in the text.
Abstract in Neues Jahrb. Mineral., 1901, ii, p. 305.
- 1899 I
[Review of Arthur Smith Woodward's Outlines of vertebrate palaeontology for students of zoology.]
Natural Science, xiv, pp. 156-159.
- 1900 A
Intercentra and hypapophyses in the cervical region of mosasaurs, lizards, and *Sphenodon*.
Amer. Naturalist, xxxiv, pp. 1-7, with 4 figs. in the text.
An abstract of this paper was published in Science, x, 1899, p. 896.
- 1900 B
Recent zoöpaleontology.
Science (2), xi, pp. 115-116.
- 1900 C
The geological and faunal relations of Europe and America during the Tertiary period and the theory of the successive invasions of an African fauna.
Science (2), xi, pp. 561-574.
- 1900 D
Recent zoöpaleontology.
Science (2), xli, pp. 767-769, with 1 text fig.
Refers to finding of *Trigonias osborni* Lucas, and *Archelon* Wieland.
- 1900 E
Phylogeny of the rhinoceroses of Europe.
Science (2), xli, p. 885.
An abstract of a paper read before the N. Y. Acad. Sci.
- 1900 F
The angulation of the limbs of *Proboscidea*, *Dinocerata*, and other quadrupeds in adaptation to weight.
Amer. Naturalist, xxxiv, pp. 89-94, with 7 figs. in the text.

Osborn, H. F.—Continued. 1900 G
Reconsideration of the evidence for a common dinosaur-avian stem in the Permian.

Amer. Naturalist, xxxiv, pp. 777-799, with 12 figs. in the text.

1900 H
Phylogeny of the rhinoceroses of Europe.

Bull. Amer. Mus. Nat. Hist., xlii, pp. 229-287, with 16 figs. in the text.

1900 I
Oxyæna and *Patriofelis* restudied as terrestrial creodonts.

Bull. Amer. Mus. Nat. Hist., xlii, pp. 269-279, with pls. xviii, xix, and 8 figs. in the text.

1900 J
Origin of the *Mammalia*. III. Occipital condyles of reptilian tripartite type.

Amer. Naturalist, xxxiv, pp. 943-947, with 8 figs. in the text.

1900 K
Correlation between Tertiary mammal horizons of Europe and America. An introduction to the more exact investigation of Tertiary zoogeography. Preliminary study with third trial sheet.

Ann. N. Y. Acad. Sci., xlii, pp. 1-72.

Pp. 59-64 are occupied by a bibliography of the subject; pp. 65-72 by a list of the scientific publications of the author.

Osborn, H. F. and Earle, Charles.

1895 A
Fossil mammals of the Puerco beds. Collection of 1892.

Bull. Amer. Mus. Nat. Hist., vii, pp. 1-70, with 21 figs. in the text.

Reviewed by W. B. Scott in Science (2), i, p. 660, and by M. Schlosser in Archiv f. Anthrop., xxv, pp. 166-179.

Osborn, H. F., Scott, W. B., and Speir, Francis, jr.

1878 A
Paleontological report of the Princeton scientific expedition of 1877.

Contrib. Mus. Geol. and Arch., Princeton College, No. 1, pp. 1-107, with pls. A, 1-x.

Followed by systematic catalogue of the Eocene vertebrates of Wyoming, pp. 131-146.

Osborn, H. F., and Speir, F. jr. 1879 A
The lower jaw of *Loxolophodon*.

Amer. Jour. Sci., xvii, 304-309, with pl. ii.

Osborn, H. F., and Wortman, J. L.

1892 A
Fossil mammals of the Wahsatch and Wind River beds. Collection of 1891.

Bull. Amer. Mus. Nat. Hist., iv, pp. 80-147 with pl. iv and 18 figs. in text.

I. Homologies and nomenclature of the mammalian molar cusps (H. F. O.), p. 84.

II. The classification of the *Perissodactyla* (H. F. O.), p. 90.

III. The ancestry of the *Felidae* (J. L. W.), p. 94.

IV. Taxonomy and morphology of the primates, creodonts, and ungulates; 1. Wahsatch; 2. Wind River (H. F. O.), p. 101.

V. Geological and geographical sketch of the Big Horn Basin (J. L. W.), p. 135.

VI. Narrative of the expedition (J. L. W.), p. 144.

For remarks on portions of this paper see Natural Science, ii, pp. 404-406; also, for abstract, Archiv f. Anthrop., xxiii, pp. 136-138.

1892 B
Characters of *Protoceras* (Marsh), the new artiodactyl from the Lower Miocene.

Bull. Amer. Mus. Nat. Hist., iv, pp. 351-371, figs. 1-6.

Abstract of, by M. Schlosser, in Archiv f. Anthrop., xxiii, pp. 135-136.

1893 A
Artionyx, a new genus of *Ancylopoda*. Appendix [p. 17]: On the mechanics of the artiodactyl tarsus.

Bull. Amer. Mus. Nat. Hist., v, pp. 1-18, with 8 text figures.

Remarks on this paper in Natural Science, ii, p. 326.

1894 A
Fossil mammals of the Lower Miocene White River beds. Collection of 1892.

Bull. Amer. Mus. Nat. Hist., vi, pp. 199-228, with pls. ii and iii, and 8 figs. in the text.

Abstract of, by M. Schlosser in Archiv f. Anthrop., xxiv, pp. 167-168.

1895 A
Perissodactyls of the Lower Miocene White River beds.

Bull. Amer. Mus. Nat. Hist., vii, pp. 343-375, with pls. viii-xi and 12 figs. in the text.

Reviewed by M. Schlosser in Archiv f. Anthrop., xxv, pp. 179-181.

Owen, David Dale.

1842 A
Regarding human footprints in solid limestone.

Amer. Jour. Sci., xliii, pp. 14-32, with 1 pl.

Owen, David Dale—Continued. 1857 A
Report of the geological survey in Kentucky, made during the years 1854 and 1855.

Amer. Jour. Sci. (2), xxiii, pp. 272-276.

An editorial notice of the above report made by D. D. Owen.

See also **Norwood and Owen**.

Owen, D. D., Norwood, J. G., and Evans, John. 1850 A

Notice of fossil remains brought by Mr. J. Evans from the Mauvais Terres, or bad lands of White River, 150 miles west of the Missouri.

Proc. Acad. Nat. Sci., v, pp. 66-67.

Owen, Richard. 1832 A

On the anatomy of the weasel-headed armadillo (*Dasypus 6-cinctus* L.).

Proc. Zool. Soc. Lond., pt. ii, 1832, pp. 134-138.

1835 A

On the comparative osteology of the orang and chimpanzee.

Proc. Zool. Soc. Lond., 1833, pt. iii, pp. 30-40.

1838 A

On the osteology of the *Marsupialia*.

Proc. Zool. Soc. Lond., 1838, pt. vi, pp. 120-147.

1838 B

On the dislocation of the tail at a certain point, observable in the skeletons of many *Ichthyosauri*.

Proc. Geol. Soc. Lond., ii, pp. 660-662.

1839 A

Outlines of a classification of the *Marsupialia*.

Proc. Zool. Soc. Lond., 1839, pt. vii, pp. 5-19.

1839 B

Observations on the teeth of the *Zeuglodon*, *Basilosaurus* of Dr. Harlan.

Proc. Geol. Soc. Lond., iii, pp. 24-28.

Also in Lond. and Edinb. Philos. Mag., xiv, pp. 302-307; Ann. Nat. Hist., 1839, iii, pp. 210-213; Ann. Sci. Naturelles (2), xii, Zool. 1839, pp. 222-229.

1839 C

Description of the *Lepidosiren annectens*.

Trans. Linn. Soc. Lond., xviii, pp. 327-361, with pls. xxiii-xxvii.

1839 D

Observations on the fossils representing the *Thylacotherium prevostii* (Valenciennes), with reference to the doubts of its mammalian and marsupial na-

Owen, Richard—Continued.

tures, and on *Phascolotherium bucklandi*. Pt. I. On the *Thylacotherium*. Pt. II. On the *Phascolotherium*.

Trans. Geol. Soc. Lond. (2), vi, pp. 41-65, with pl. v.

1840 A

Report on British fossil reptiles. Pt. I.

Report of Brit. Assoc. Adv. Sci., 9th meeting, Birmingham, 1839, pp. 43-126.

1840 B

Description of a tooth and part of the skeleton of the *Glyptodon clavipes*, a large quadruped of the Edentate order, to which belongs the tessellated armour described and figured by Mr. Clift in the former volume of the Transactions of the Geological Society, with a consideration of the question whether the *Megatherium* possessed an analogous dermal armour.

Trans. Geol. Soc. Lond. (2), vi, pp. 81-106, with pls. x-xiii.

For preliminary description see Proc. Geol. Soc. Lond., iii, 1840, p. 108.

1840 D

Note on the dislocation of the tail at a certain point observable in the skeletons of many *Ichthyosauri*.

Trans. Geol. Soc. Lond. (2), v, pp. 511-514, with pl. xiii.

1840 E

A description of a specimen of the *Plesiosaurus macrocephalus*, Conybeare, in the collection of Viscount Cole, M. P., D. C. L., F. G. S., etc.

Trans. Geol. Soc. Lond. (2), v, pp. 515-535, with pls. xliiii-xlv.

1840 F

Fossil *Mammalia*.

The zoology of the voyage of H. M. S. Beagle. Part I, pp. 18-111, with pls. i-xxxii.

1840 G

Description of the fossil remains of a mammal, a bird, and a serpent from the London clay.

Proc. Geol. Soc. Lond. iii, pp. 162-166.

The genera *Lithornis* and *Palaophis* are established.

1841 A

A description of some of the soft parts, with the integument, of the hind-fin of the *Ichthyosaurus*, indicating the shape of the fin when recent.

Trans. Geol. Soc. Lond. (2), vi, pp. 199-201, with pl. xx.

Owen, Richard—Continued. 1841 B

Description of some ophidiolites (*Palaophis toliapicus*) from the London clay at Sheppey, indicative of an extinct species of serpent.

Trans. Geol. Soc. Lond. (2), vi, pp. 209-210, with pl. xxii.

1841 C

Observations on the *Basilosaurus* of Dr. Harlan (*Zeuglodon cetoides* Owen).

Trans. Geol. Soc. Lond. (2), vi, pp. 69-79, with pls. vii-ix.

1841 D

On the teeth of species of the genus *Labyrinthodon* (*Mastodonsaurus salamdroides* and *Phytosaurus* (?) of Jaeger, from the German Keuper and the sandstone of Warwick and Leamington.

Ann. and Mag. Nat. Hist., viii, pp. 58-61.

Taken from Proc. Geol. Soc. Lond., iii, pp. 389-397.

1841 E

A description of a portion of the skeleton of the *Cetiosaurus*, a gigantic extinct saurian, occurring in the Oolitic formation of different portions of England.

Proc. Geol. Soc. Lond., iii, pp. 457-462.

1841 F

On the structure of fossil teeth from the central or Corn-stone division of the Old Red sandstone, indicative of a new genus of fishes, or fish-like *Batrachia*, for which is proposed the name of *Dendrodus*.

Micros. Journ. and Struct. Record, i, pp. 1-4; 17-20, with 7 figs. in the text.

1842 A

Report on British fossil reptiles. Part II.

Report Brit. Assoc. Adv. Sci., 11th meeting, Plymouth, 1841, pp. 60-204.

1842 B

On the teeth of a species of the genus *Labyrinthodon* (*Mastodonsaurus* of Jaeger), common to the German Keuper formation and the lower sandstone of Warwick and Leamington.

Trans. Geol. Soc. Lond. (2); vi, pp. 508-518.

1842 C

Description of parts of the skeleton and teeth of five species of the genus *Labyrinthodon* . . . with remarks on the

Owen, Richard—Continued.

probable identity of *Cheirotherium* with this genus of extinct batrachians.

Trans. Geol. Soc. Lond., vi, pp. 515-543, with pls. xliiii-xlvii.

1842 D

Description of the skeleton of an extinct gigantic sloth, *Mylodon robustus*, Owen, with observations on the osteology, natural affinities, and probable habits of the megatheroid quadrupeds in general.

Pp. 1-176, with pls. i-xxiv. London, 1842, 4to.

1842 E

Report on the *Missourium* now exhibiting at the Egyptian Hall, with an inquiry into the claims of *Tetracaulodon* to generic distinction.

Proc. Geol. Soc. Lond., iii, pp. 689-695.

1843 A

Report on the British fossil *Mammalia*. Part I. *Unguiculata* and *Cetacen*.

Report Brit. Assoc. Adv. Sci., 12th meeting, Manchester, 1842, pp. 54-74.

1843 B

On Dr. Harlan's notice of new fossil *Mammalia*.

Amer. Jour. Sci., xlii, pp. 341-345.

Letter from Professor Owen regarding *Orycterotherium*, *Mylodon*, and *Megatherium*.

1844 A

Report on the British fossil *Mammalia*. Part II. *Ungulata*.

Report Brit. Assoc. Adv. Sci., 13th meeting, Cork, 1843, pp. 208-241.

1845 A

Account of various portions of the *Glyptodon*, an extinct quadruped, allied to the armadillo, and recently obtained from the Tertiary deposits in the neighborhood of Buenos Ayres.

Quart. Jour. Geol. Soc., i, pp. 257-262.

1845 B

Odontography; or a treatise on the comparative anatomy of the teeth, etc.

Vol. i, text, pp. i-lxxiv, 1-656; Vol. ii, atlas, pls. i, ii, 1-150. London, 1840-1845.

Due to repetitions of numbers on pls.; there are altogether 168.

For dates of publication see Woodward and Sherborn, 1890 A.

1845 C

Reply to some observations of Prof. Wagner on the genus *Mylodon*.

Ann. and Mag. Nat. Hist. (1), xvi, pp. 100-102.

Owen, Richard—Continued. 1845 D

Description of certain fossil crania discovered by A. G. Bain, esq., in the sandstone rocks at the southeastern extremity of Africa, referable to different species of an extinct genus of *Reptilia* (*Dicynodon*), and indicative of a new tribe or suborder of *Sauria*.

Trans. Geol. Soc., London (2), vii, pp. 59-84, with pls. iii-vi.

1846 A

Observations on certain fossils from the collection of the Academy of Natural Sciences of Philadelphia.

Proc. Acad. Nat. Sci. Phila., iii, pp. 93-96.

Reference to this paper is made in Amer. Jour. Sci., iii, 1847, p. 125.

1846 B

A history of British fossil mammals and birds.

Pp. i-xlvi; 1-560. Illustrated by 237 woodcuts. London.

1846 C

[Extracts from letters to Dr. S. G. Morton on *Dorudon* of Gibbses.]

Jour. Acad. Nat. Sci. Phila., i, pp. 9-10.

This forms a portion of Dr. Gibbses's paper on *Basilosaurus*, Gibbses, R. W., 1847 B.

1846 D

On the fossil genus *Dorudon*.

Proc. Acad. Nat. Sci., Phila., iii, p. 15.

Abstract of letter stating that *Dorudon* of Gibbses is same as *Zuglodon*.

1847 A

General geological distribution and probable food and climate of the mammoth.

Amer. Jour. Sci. (2), iv., pp. 13-19.

Extracted from Owen's British Fossil Mammalia.

1847 B

Report on the archetype and homologies of the vertebrate skeleton. Part I. Special homology. Part II. General homology.

Report Brit. Assoc. Adv. Sci., 16th meeting, Southampton, 1846, pp. 169-340, with 28 woodcuts and 3 tables.

1847 C

Notices of some fossil *Mammalia* of South America.

Report Brit. Assoc. Adv. Sci., 16th meeting, Southampton, 1846, pp. 66-67.

1847 D

Observations on certain fossil bones from the collection of the Academy of Natural Sciences of Philadelphia.

Jour. Acad. Nat. Sci. Phila. (2), i, pp. 18-20.

Collection made in digging canal near Brunswick, Ga.

Owen, Richard—Continued. 1847 E

Description of the atlas, axis, and subvertebral wedge-bones in the *Plesiosaurus*, with remarks on the homologies of those bones.

Ann. and Mag. Nat. Hist. (1), xx, pp. 217-225, with 6 figs. in the text.

1848 A

Description of teeth and portions of jaws of two extinct anthracotheroid quadrupeds (*Hyopotamus rectianus* and *H. borinus*) discovered by the Marchioness of Hastings in the Eocene deposits on the N. W. coast of the Isle of Wight, with an attempt to develop Cuvier's idea of the classification of pachyderms by the number of their toes.

Quart. Jour. Geol. Soc., iv, pp. 104-141, pls. vii-viii, with 13 figs. in text.

1849 A

Notes on remains of fossil reptiles discovered by Prof. Henry Rogers, of Pennsylvania, U. S., in Green-sand formations of New Jersey.

Quart. Jour. Geol. Soc., v, pp. 380-383, with pls. x-xi.

1849 B

Monograph on the fossil *Reptilia*. Part I. *Chelonia*.

Palaontographical Society, ii, pp. 1-76, 38 pls.

The above is a joint paper by Professors Owen and Bell.

1849 C

On the development and homologies of the carapace and plastron of the chelonian reptiles.

Philos. Trans. Roy. Soc. Lond., pp. 161-170, with pl. 18, and 9 figs in the text.

1850 A

Monograph of the fossil *Reptilia* of the London clay. Part II. *Crocodylia*, *Ophidia*.

Palaontographical Society, iii, pt. 2, pp. 1-68, pls. xxix; i-xvi.

1850 B

On the communications between the cavity of the tympanum and the palate in the *Crocodylia* (gavials, alligators, and crocodiles).

Philos. Trans. Roy. Soc. Lond., 1850, pp. 521-527, with pls. xi-xlii.

1851 A

On a new species of pterodactyle (*P. compressirostris*, Owen) from the Chalk, with some remarks on the

Owen, Richard—Continued.

nomenclature of the previously described species.

Proc. Zool. Soc. Lond., 1861, pt. xix, pp. 21-34, with pl. v.

1851 B

Monograph on the fossil *Reptilia* of the Cretaceous formations.

Palæontographical Society, v, pp. 1-118, pls. 1-xxxvii.

1851 C

On the *Megatherium* (*M. americanum* Cuv. & Blum). Part I. Preliminary observations on the exogenous processes of vertebrae.

Philos. Trans. Roy. Soc. Lond., 1861, pp. 719-764; pls. xliiv-lili.

1852 A

Comparison of the modifications of the osseous structure of the *Megatherium* with that in other known existing and extinct species of the class *Mammalia*.

Amer. Jour. Sci. (2), xiv, pp. 91-97.

Abstract of a memoir read by Professor Owen to the Royal Society of London, cited from Jameson's Edinb. Jour., li, 350.

1852 B

On the fossil *Mammalia* from the Eocene fresh-water formation at Hardwell, Hants.

Report Brit. Assoc. Adv. Sci., 21st meeting, Ipswich, 1861, p. 67.

1853 A

On the anatomy of the walrus.

Proc. Zool. Soc. Lond., 1863, pt. xxi, pp. 103-106.

Among other things this paper treats of the dentition.

1853 B

A monograph of the fossil chelonian reptiles of the Wealden clays and Purbeck limestones.

Palæontographical Society, vii, pp. 1-12, pls. 1-ix.

1853 C

Notes on the above-described fossil remains.

Quart. Jour. Geol. Soc., ix, pp. 66-67, with pls. ii, iii.

Discusses relationships of the bones discovered by Lyell and Dawson in Nova Scotia, and assigns to them the name *Dendrocyon acadianum*.

Owen, Richard—Continued. 1853 D

Notice of a batrachoid fossil in British Coal shale.

Quart. Jour. Geol. Soc., ix, pp. 67-70, with pl. ii.

Describes and figures *Parabatrachus* (type *P. colet*), *Megalichthys*, and *Centrodus*.

1854 A

On a fossil imbedded in a mass of Pictou coal from Nova Scotia.

Quart. Jour. Geol. Soc., x, pp. 207-208 with pl. ix.

1854 B

Monograph on the fossil *Reptilia* of the Wealden formations. Part II. *Dinosauria*.

Palæontographical Society, viii, pp. 1-64, pls. 1-xix.

1854 C

On some fossil reptilian and mammalian remains from the Purbecks.

Quart. Jour. Geol. Soc., x, pp. 420-433, with 12 figs. in the text.

1855 A

Additional remarks on the skull of the *Baphetes planiceps*, Ow.

Quart. Jour. Geol. Soc., xi, pp. 9-10.

1855 B

On the *Megatherium* (*M. americanum* Cuv. & Blum). Part II. Vertebrae of the trunk.

Philos. Trans. Roy. Soc. Lond., cxlv., pp. 359-388, pls. xxii-xxvii.

1855 C

On the fossil skull of a mammal (*Prorastomus sirenooides*, Owen) from the island of Jamaica.

Quart. Jour. Geol. Soc., xi, pp. 541-543, with pl. xv.

1856 A

Monograph on the fossil *Reptilia* of the Wealden formations. Part III. *Megalosaurus bucklandi*.

Palæontographical Society, ix, pp. 1-26, pls. 1-xii.

1856 B

On the *Megatherium* (*M. americanum* Cuv. & Blum). Part III. The skull.

Philos. Trans. Roy. Soc. Lond., cxlvi, pp. 571-589, pls. xxi-xxvi.

1856 C

Description of a fossil cranium of the musk-buffalo [*Bubalus moschatus* Owen; *Bos moschatus* (Zimm. & Gmel.) Pallas; *Bos pallasii*, Dekay; *Oribos pallasii*, H.

Owen, Richard—Continued.

Smith & Bl.] from the "lower-level drift" at Maidenhead, Berkshire.

Quart. Jour. Geol. Soc., xli, pp. 124-181, with 6 figs. in the text.

1856 D

Description of the skull of a large species of *Dicynodon* (*D. tigriceps*, Ow.), transmitted from South Africa by A. G. Bain, esq.

Trans. Geol. Soc. Lond. (2), vii, pp. 233-240, with pls. xxix-xxxii.

1856 E

On parts of the trunk of the *Dicynodon tigriceps*.

Trans. Geol. Soc. Lond. (2), vii, pp. 241-247, with pls. xxxiii-xxxiv.

1856 F

On the affinities of the large extinct bird (*Gastornis parisiensis*) indicated by a fossil femur and tibia discovered in the lowest Eocene formation near Paris.

Quart. Jour. Geol. Soc., xli, pp. 204-217, with pl. iii.

The structure of the tibia and femur in the various orders of birds and a number of genera is discussed.

1857 A

On the ruminant quadrupeds and the aboriginal cattle of Great Britain.

Amer. Jour. Sci. (2), xxlii, pp. 132-136.

From Proc. Roy. Inst. Great Britain, May, 1856.

1857 B

Monograph on the fossil *Reptilia* of the Wealden formation. Part IV.

Palaeontographical Society, x, pp. 1-26, pls. 1-xi.

Treats of *Iguanodon* and *Hylæosaurus*.

1857 C

Description of a small Lophiodont mammal (*Phiolophus vulpiceps*, Owen) from the London clay, near Harwich.

Quart. Jour. Geol. Soc., xiv, pp. 54-71, with double pls. ii, iii, iv.

1857 D

Description of the lower jaw and teeth of an Anoplotheroid quadruped (*Dichobune ovina*, Ow.) of the size of the *Xiphodon gracilis*, Cuv., from the Upper Eocene marl, Isle of Wight.

Quart. Jour. Geol. Soc., xlii, pp. 254-260, with pl. viii.

Owen, Richard—Continued. 1858 A

On the characters, principles of division, and primary groups of the class *Mammalia*.

Amer. Jour. Sci. (2), xxv, pp. 7-18; 177-198.

From Jour. of Proc. Linn. Soc., Lond., 1857.

1858 B

Notes and additions [in Buckland's *Geology and Mineralogy*].

See Buckland, W., 1858 A.

1858 C

On the *Megatherium* (*M. americanum*, Cuv. and Blum.) Part IV. Bones of the anterior extremities.

Philos. Trans. Roy. Soc. Lond., cxlviii, pp. 261-278, pls. xviii-xxii.

1859 A

On a new genus (*Dimorphodon*) of pterodactyle, with remarks on the geological distribution of flying reptiles.

Report Brit. Assoc. Adv. Sci., 28th meeting, Leeds, 1858, pp. 97-98.

1859 B

On remains of new and gigantic species of pterodactyle (*Pter. filtoni* and *Pter. sedgwickii*) from the upper Greensand near Cambridge.

Report Brit. Assoc. Adv. Sci., 28th meeting, Leeds, 1858, pp. 98-103.

1859 C

On the gorilla (*Troglodytes gorilla*, Sav.).

Proc. Zool. Soc. London, 1859, pt. xxvii, pp. 1-23.

1859 D

Monograph on the fossil *Reptilia*. Including supplement No. 1, Cretaceous *Pterosauria*, and No. 2, Wealden *Crocodylia*.

Palaeontographical Society, xi, pp. 1-44, pls. 1-xii.

1860 A

On the orders of fossil *Reptilia* and their distribution in time.

Report Brit. Assoc. Adv. Sci., 29th meeting, Aberdeen, 1859, pp. 153-166.

1860 B

Monograph of the fossil *Reptilia* of the Cretaceous and Purbeck strata, including supplement No. III, Cretaceous *Pterosauria* and *Sauropterygia*. Supplement No. II, *Iguanodon* and Purbeck *Lacertilia*.

Palaeontographical Society, xii, pp. 1-39, pls. 1-viii.

Owen, Richard—Continued. 1860 C

On the vertebral characters of the order *Pterosauria*, as exemplified in the genera *Pterodactylus* (Cuvier) and *Dimorphodon* (Owen).

Philos. Trans. Roy. Soc. Lond., cxlix, pp. 161-169, with 10 pls.

1860 D

On the *Megatherium* (*M. americanum* Cuv. & Blum.). Part. V. Bones of the posterior extremities.

Philos. Trans. Roy. Soc. Lond., vol. cxlix, pp. 809-829, pls. xxxvii-xli.

1860 E

Palæontology; or, a systematic summary of extinct animals and their geological remains.

Pp. 1-xv, 1-420, with 141 figs., Edinburgh, 1860. A second edition was published in 1861.

1860 F

On some reptilian fossils from South Africa.

Quart. Jour. Geol. Soc., xvi, pp. 49-63, with pls. i-iii.

1862 A

Description of specimens of fossil *Reptilia* discovered in the Coal-measures of the South Joggins, Nova Scotia, by Dr. J. W. Dawson.

Quart. Jour. Geol. Soc., xviii, pp. 238-244, with pls. ix-x.

1863 A

(I) On the Dicynodont *Reptilia*, with a description of some fossil remains brought by H. R. H. Prince Alfred from South Africa, November, 1860.

(II) On the pelvis of *Dicynodon*. (III) Notice of a skull and parts of the skeleton of *Rhynchosaurus articeps*.

Philos. Trans. Roy. Soc. Lond., cliii, pp. 455-467, with pls. xix-xxv.

1864 A

On the skeleton of the gare-fowl (*Alca impennis*), and the probability of its being an extinct species.

Amer. Jour. Sci. (2), xxxviii, p. 431.

Taken from Proc. Zool. Soc. Lond., July 9, 1864.

1864 B

Monograph of the fossil *Reptilia* of the Cretaceous formations; including supplement No. II, Cretaceous *Sauropterygia*. Supplement No. III, *Iguanodon*.

Palæontographical Society, xvi, pp. 1-21, pls. 1-x.

Owen, Richard—Continued. 1864 C

On the *Archæopteryx* of Von Meyer, with a description of a long-tailed species from the lithographic stone of Solenhofen.

Philos. Trans. Roy. Soc. Lond., cliii, pp. 33-47, pls. 1-iv.

1865 A

Monograph of the fossil *Reptilia* of the Liassic formations. Part I. *Sauropterygia*.

Palæontographical Society, xvii, pp. 1-40, pls. 1-xvi.

1865 B

Observations on Recherches sur les Squalodons, par P. J. Van Beneden.

Geol. Magazine (1), li, pp. 405-411.

A review of the above work of Van Beneden, which appeared in Memoirs Royal Acad. of Belgium, 1865.

1866 A

On the anatomy of vertebrates. I. Fishes and reptiles.

Pp. 1-xlii, 1-650, woodcuts 452. London, 1866, 8vo.

1866 B

On the anatomy of vertebrates. II. Birds and mammals.

London, 1866, pp. 1-viii, 1-592, with 406 figs. in the text and 3 tables. 8vo.

1866 C

Description of the skeleton of the great auk, or garfowl (*Alca impennis* L.).

Trans. Zool. Soc. Lond., v, pp. 317-335, with pls. ii and iii.

1866 D

Description of part of the lower jaw and teeth of a small Oolitic mammal (*Stylodon pusillus* Ow.).

Geol. Magazine (1), iii, pp. 199-201, with pl. x, figs. 1, 2.

1867 A

On the mandible and mandibular teeth of Cochliodonts.

Geol. Magazine (1), iv, pp. 59-63, with pls. iii and iv.

1867 B

On the dental characters of genera and species, chiefly of fishes from the Lower Main seam and shales of coal, Northumberland.

Trans. Odontolog. Soc. Great Britain, v, pp. 323-376 with pls. 1-xv.

Owen, Richard—Continued. 1868 A
On the anatomy of vertebrates. III.
Mammals.

Pp. 1-x, 1-915, text figs. 1-614, London, 1868.
Vol. III treats of the anatomy of the soft
portions of the animal body and of the dentary
and tegumentary systems. Chapter XI treats
of the general conclusions reached.

1869 A

On fossil teeth of equines from Cen-
tral and South America.

Proc. Roy. Soc. Lond., xvii, pp. 267-268.

Equus conversidens described. *E. tau*, *E. curvidens*, and *E. arcidens* mentioned.

1870 A

Monograph of the fossil *Reptilia* of
the Liassic formations. Part II. *Ptero-*
sauria.

Palaeontographical Society, xxiii, pp. 41-81,
pls. xvii-xx.

1870 B

On fossil remains of equines from
Central and South America referable
to *Equus conversidens*, Ow., *Equus tau*,
Ow., and *Equus arcidens*, Ow.

Philos. Trans. Roy. Soc. Lond., clix, 559-573,
pls. lxi-lxii.

1870 C

On remains of a large extinct lama
(*Palauchenia magna* Ow.), from Quater-
nary deposits in the valley of Mexico.

Philos. Trans. Roy. Soc. Lond., cli, pp. 66-77,
pls. iv-vii.

1871 A

Monograph of the fossil *Mammalia*
of the Mesozoic formations.

Palaeontographical Society, xxiv, pp. 1-115,
pls. i-iv.

1872 A

Monograph of the fossil *Reptilia* of
Wealden formation. Supplement No.
IV. *Dinosauria* (*Iguanodon*).

Palaeontographical Society, xxv, pp. 1-15,
pls. i-iii.

1873 A

Description of the skull of a dentig-
erous bird (*Odontopteryx totiapicus*,
Ow.) from the London clay of Sheppey.

Quart. Jour. Geol. Soc., xxix, pp. 511-522,
with pls. xvi-xvii.

1874 A

Monograph on the fossil *Reptilia* of
the Wealden and Purbeck formations.
Supplement No. V. *Iguanodon*.

Palaeontographical Society, xxvii, pp. 1-18,
pls. i, ii.

Owen, Richard—Continued. 1874 B
Monograph on the fossil *Reptilia* of
the Mesozoic formations. Part I. *Ptero-*
sauria (*Pterodactylus*).

Palaeontographical Society, xxvii, pp. 1-14,
pls. i, ii.

1875 A

On fossil evidences of a sirenian
mammal (*Eotherium ægypticum*, Owen)
from the Nummulitic Eocene of the
Mokattam Cliffs, near Cairo.

Quart. Jour. Geol. Soc., xxxi, pp. 100-105,
with pl. iii.

1875 B

On *Prorastomus sirenoides* (Ow.).
Part II.

Quart. Jour. Geol. Soc., xxxi, pp. 559-567,
with pls. xxviii, xxix.

Reviewed in Geol. Magazine, (2) ii, pp.
422-423.

1875 C

Monograph of the fossil *Reptilia* of
the Mesozoic formations. Part II.
(Genera *Bothriospondylus*, *Cetiosaurus*,
Omosaurus.)

Palaeontographical Society, xxix, pp. 15-98,
pls. iii-xxii.

1876 A

On the existence or not of horns in
the *Dinocerata*.

Amer. Jour. Sci. (3), xi, pp. 401-403.

1876 B

Evidences of Theriodonts in Permian
deposits elsewhere than in South Af-
rica.

Quart. Jour. Geol. Soc., xxxii, pp. 352-363,
with 9 text figs.

Discusses *Bathygnathus borealis*.

1876 C

Monograph on the fossil *Reptilia* of
the Wealden and Purbeck formations.
Supplement No. VII. *Crocodylia* (*Poiki-*
lopleuron), *Dinosauria* (*Chondrosteo-*
saurus).

Palaeontographical Society, xxx, pp. 1-7, pls.
i-vi.

1877 A

On the rank and affinities in the rep-
tilian class of the *Mosasaurida*, Gervais.

Quart. Jour. Geol. Soc., xxxiii, pp. 682-715,
with 24 figs. in the text.

1878 A

On the influence of the advent of a
higher form of life in modifying the
structure of an older and lower form.

Quart. Jour. Geol. Soc., xxxiv, pp. 421-430.

Owen, Richard—Continued. 1878 B

On the affinities of the *Mosasauroidea*, Gervais, as exemplified in the bony structure of the fore fin.

Quart. Jour. Geol. Soc., xxxiv, pp. 748-753, with 4 woodcuts in text.

1878 C

Monograph on the fossil *Reptilia* of the Wealden and Purbeck formations. Supplement No. VII. *Crocodylia* (*Goniopholis*, *Petrosuchus*, and *Suchosaurus*).

Palaeontographical Society, xxxii, pp. 1-15, pls. i-vi.

1878 D

On the occurrence in North America of rare extinct vertebrates found fragmentarily in England.

Ann. and Mag. Nat. Hist. (5), ii, pp. 201-223, with pls. x, xi.

1879 A

Monograph of the fossil *Reptilia* of the Wealden and Purbeck formations. Supplement, No. IX. *Crocodylia* (*Goniopholis*, *Brachydectes*, *Nannosuchus*, *Theriosuchus*, and *Nuhtes*).

Palaeontographical Society, xxxiii, pp. 1-19, pls. i-iv.

1879 B

On the occurrence in North America of rare extinct vertebrates found fragmentarily in England.

Ann. and Mag. Nat. Hist. (5), iv, pp. 53-61, with pl. viii.

A continuation of paper designated Owen R., 1878 D.

1880 A

On the occurrence in North America of rare extinct vertebrates found fragmentarily in England.

Ann. and Mag. Nat. Hist. (5), v, pp. 177-181, with pl. viii.

Conclusion of papers designated as Owen R., 1878 D and Owen R., 1879 B.

1881 A

A monograph of the fossil *Reptilia* of the Liassic formations. Part III. *Ichthyopterygia*.

Palaeontographical Society, xxxv, pp. 83-134, pls. xxi-xxxiii.

1881 B

On the order *Theriodontia*, with a description of a new genus and species (*Elurosaurus felinus* Ow.).

Quart. Jour. Geol. Soc., xxxvii, pp. 261-265, with pl. ix.

Owen, Richard—Continued. 1881 C

Description of parts of the skeleton of an Anomodont reptile (*Platypodasaurus robustus* Owen). Part II. The pelvis.

Quart. Jour. Geol. Soc., xxxvii, pp. 266-271, with pl. x.

Contains remarks by Seely and Twelve-trees.

1883 A

On generic characters in the order *Sauropterygia*.

Quart. Jour. Geol. Soc., xxxix, pp. 133-138, with 3 woodcuts in the text.

1883 B

On the skull of *Megalosaurus*.

Quart. Jour. Geol. Soc., xxxix, pp. 334-347, with pl. xi and 1 cut in the text.

1884 A

On the skull and dentition of a Triassic mammal (*Tritylodon longevus*) from South Africa.

Quart. Jour. Geol. Soc., xl, pp. 146-152, with pl. vi.

1886 A

American evidences of Eocene mammals of the "plastic-clay" period.

Report Brit. Assoc. Adv. Sci., 55th meeting, Aberdeen, 1885, p. 1083. Abstract.

1886 B

On a new perissodactyle ungulate from Wyoming.

Geol. Magazine (3), lii, p. 140.

A reference to Woodward, H., 1886 B, concerning *Phnacodus*.

1889 A

Monograph on the British fossil *Cetacea* of the Red Crag.

Palaeontographical Society, pp. 1-40, with pls. 1-v and 14 text figs.

This paper deals especially with the genus *Ziphius*, but a number of other genera are discussed, among them *Belemnociphius*.

Packard, A. S.**1867 A**

Observations on the glacial phenomena of Labrador and Maine, with a view of the recent invertebrate fauna of Labrador.

Mem. Boston Soc. Nat. Hist., i, pp. 210-303, with pls. vii, viii.

1868 A

The hairy mammoth.

Amer. Naturalist, ii, pp. 23-35, with 4 woodcuts in the text.

1886 A

Geological extinction and some of its apparent causes.

Amer. Naturalist, xx, pp. 29-40.

- Palmer, T. S.** 1895 A
The earliest name for Steller's sea cow and dugong.
Science (2), II., pp. 449-450.
The earliest generic name of the sea cow is *Hydrodamalis* Retzius; the earliest specific name is *gigas* Zimm.
- 1897 A
On the genera of rodents: An attempt to bring up to date the current arrangement of the order. By Oldfield Thomas, F. Z. S., Proc. Zool. Soc. London, 1896, pp. 1012-1028.
Science (2), VI, pp. 103-107.
A review of the paper whose title is quoted above.
- 1899 A
[Review of Dr. E. L. Trouessart's *Catalogus Mammalium*.]
Science (2), X, pp. 491-495.
Contains corrections of various generic names of mammals.
- Pander, Christ. H.** 1856 A
Monographie der fossilen Fische des silurischen Systems der russisch-baltischen Gouvernements.
Pp. 1-x, 1-91, with 9 pls. St. Petersburg, 1856.
- 1857 A
Ueber die Placodermen des devonischen Systems.
Pp. 1-106, with pls. 1-8, and B. St. Petersburg, 1857. 4°.
- 1858 A
Die Ctenodipterinen des devonischen Systems.
Pp. i-viii, 1-65, with pls. 1-ix. 4°.
- 1860 A
Ueber die Saurodipteren, Dendrodipteren, Glyptolepiden, und Cheirolepiden des devonischen Systems.
Pp. 1-ix, 1-90, with 17 pls. St. Petersburg, 1860.
- Pander, C. H., and d'Alton, Ed.** 1818 A
Riesenfaulthier (*Megatherium*).
Ists von Oken, 1818, cols. 1083-1086.
A letter addressed to Ists from Madrid.
- Panton, J. Hoyes.** 1891 A
The mastodon and mammoth in Ontario, Canada.
Geol. Magazine (3), viii, pp. 504-505.
- 1892 A
The mastodon and mammoth in Ontario, Canada.
Report Brit. Assoc. Adv. Sci., 61st meeting, Cardiff, 1891, pp. 654-655.
- Paquier, V.** 1894 A
Étude sur quelques cétacés du Miocène.
Mém. Soc. Géol. France. Paléontologie, IV, mém. No. 12, pp. 1-20, with pls. xvii-xviii.
- Parker, H. W.** 1884 A
[Abstract of an account of the finding of a mammoth in Grinnel, Iowa, by H. W. Parker; taken from *Daily Iowa Capital*.]
Science, IV, p. 46.
- 1885 A
Footprints in the rocks of Colorado.
Science, V, pp. 312-313, with 2 woodcuts.
- Parker, T. Jeffrey.** 1887 A
Notes on *Carcharodon rondeletti*.
Proc. Zool. Soc. Lond., 1887, pp. 27-40, with pls. iv-viii.
- 1890 A
On the presence of a sternum in *Notidanus indicus*.
Nature, XLIII, p. 142, with 1 fig.
- 1895 A
On the cranial osteology, classification, and phylogeny of the *Dinornithidae*.
Trans. Zool. Soc. Lond., XLII, pp. 373-431, with pls. lvi-lxii.
- Parker, W. K.** 1864 A
On the sternal apparatus of birds and other *Vertebrata*.
Proc. Zool. Soc. Lond., 1864, pp. 339-341.
- 1866 A
On the structure and development of the skull in the ostrich tribe.
Philos. Trans. Roy. Soc. Lond., clvi, pp. 113-183, with pls. vii-xv.
- 1866 B
On the osteology of gallinaceous birds and tinamous.
Trans. Zool. Soc. Lond., V, pp. 149-241, with pls. xxxiv-xlii.
- 1868 A
A monograph on the structure and development of the shoulder girdle and sternum in the *Vertebrata*.
Published by the Ray Society, pp. i-xii, 1-237, with pls. 1-xxx.
- 1870 A
On the structure and development of the skull of the common fowl.
Philos. Trans. Roy. Soc. Lond., clx, pp. 755-807; pls. lxxx-lxxxvii.

Parker, W. K.—Continued. 1871 A

On the structure and development of the skull of the common frog (*Rana temporaria*).

Philos. Trans. Roy. Soc. Lond., clxi, pp. 187-211, pls. iii-x.

1872 A

On the structure and development of the crow's skull.

Monthly Micros. Jour. Lond., viii, pp. 217-226, with pls. xxxiv-xxxvi.

1873 A

On the development of the skull in the tit and sparrow-hawk.

Monthly Micros. Jour. Lond., ix, pp. 6-11; 45-50, with pls. ii, v, vi.

1874 A

On the structure and development of the skull in the salmon (*Salmo salar* L.)

Philos. Trans. Roy. Soc. Lond., clxiii, pp. 95-145; pls. i-viii.

1874 B

On the structure and development of the skull in the pig (*Sus scrofa*).

Philos. Trans. Roy. Soc., clxiv, pp. 289-336, pls. xxviii-xxxvii.

An analysis of this memoir by E. Alix is found in Jour. de Zoologie, iv, 1875, pp. 62-69.

1875 A

Birds.

Encyclop. Brit., ed. 9, lili, pp. 699-728, woodcuts 1-37.

The remainder of the article on birds is from the pen of Alfred Newton. Parker deals with the osteology in particular.

1875 B

On ægithognathus birds. (Part I.)

Trans. Zool. Soc. Lond., ix, pp. 289-352, with pls. liv-lxii.

1876 A

On the structure and development of the bird's skull.

Trans. Linn. Soc. Lond. (2), i, pp. 99-154, with pls. xx-xxvii.

1877 A

On the structure and development of the skull in the *Batrachia*. Part. II.

Philos. Trans. Roy. Soc. Lond., clxvi, pp. 601-669, pls. liv-lxii.

1878 A

On the structure and development of the skull in the sharks and skates.

Trans. Zool. Soc. Lond., x, pp. 189-234, with pls. xxxiv-xlii.

1878 B

On the skull of the ægithognathous birds.

Trans. Zool. Soc. Lond., x, pp. 251-314, with pls. xlii-liv.

Parker, W. K.—Continued. 1879 A

On the structure and development of the skull in the common snake (*Tropidonotus natrix*).

Philos. Trans. Roy. Soc. Lond., clxix, pp. 385-417, pls. xxxvii-xxxviii.

1879 B

On the evolution of the *Vertebrata*.

Nature, xx, pp. 30-32, 61-64, 81-83, with 4 figs. in the text.

1880 A

On the structure and development of the skull in the *Lacertilia*.

Philos. Trans. Roy. Soc. Lond., clxx, pp. 596-640, pls. xxxvii-xlv.

See also Proc. Roy. Soc. Lond., 1879, p. 214.

1881 A

On the structure and development of the skull in the *Batrachia*. Part III.

Philos. Trans. Roy. Soc. Lond., clxxii, pp. 1-266, pls. i-iv.

1882 A

On the development of the skull in *Lepidosteus osseus*.

Philos. Trans. Roy. Soc. Lond., clxxiii, pp. 443-491, pls. xxx-xxxviii.

1882 B

On the structure and development of the skull in sturgeons (*Acipenser ruthenus* and *A. sturio*).

Philos. Trans. Roy. Soc. Lond., clxxiii, pp. 139-185, pls. xii-xviii.

1882 C

On the structure and development of the skull in the urodeles.

Trans. Zool. Soc. Lond., xi, pp. 171-214, with pls. xxxvi-xli.

1882 D

On the morphology of the skull in the *Amphibia Urodela*.

Trans. Linn. Soc. Lond. (2), ii, pp. 165-212, with pls. xiv-xxi.

1883 A

On the structure and development of the skull in the *Crocodylia*.

Trans. Zool. Soc. Lond., xi, pp. 263-310, with pls. lxii-lxxi.

1884 A

On the presence of claws in the wings of birds.

The Ibis (5), vi, pp. 124-128, with 4 figs. in the text.

1885 A

On mammalian descent: The Hunterian lectures for 1884.

Pp. i-xii, 1-229, with addenda and illua.

- Parker, W. K.**—Continued. 1885 B
On the structure and development of the skull in the *Mammalia*. Part III. *Insectivora*.
Nature, xxxi, pp. 377-379.
- 1886 A
On the structure and development of the skull in the *Mammalia*. Part II.
Philos. Trans. Roy. Soc., Lond., clxxvi, pp. 121-278, pls. xvi-xxxix.
- 1887 A
On the morphology of birds.
Nature, xxxv, pp. 331-332.
- 1889 A
On the structure and development of the wing of the common fowl.
Philos. Trans. Roy. Soc. Lond., clxxix, pp. 385-398, pls. lxii-lxv.
- 1889 B
On the "manus" of *Phenicopterus*.
The Ibis (6), i, pp. 183-186, with 2 figs. in the text.
- 1891 A
On the morphology of a reptilian bird, *Opisthocomus cristatus*.
Trans. Zool. Soc. Lond., xlii, pp. 43-85, with pls. vii-x.
- 1891 B
On the morphology of the *Gallinaceæ*.
Trans. Linn. Soc. Lond., (2), v, pp. 213-244, with pls. xxii-xxv.
- Parsons, F. G.** 1899 A
The joints of mammals compared with those of man.
Jour. Anat. and Physiol., xxxiv, pp. 41-68, with 14 text figs.
- 1900 A
The joints of mammals compared with those of man. Part II. Joints of the hind limbs.
Jour. Anat. and Physiol., xxxiv, pp. 301-323, with 10 figs. in the text.
- Patten, William.** 1890 A
On the origin of vertebrates from arachnids.
Quart. Jour. Micros. Sci., xxxi, pp. 317-378, with pls. xxiii, xxiv, and 18 text figs.
- Paulli, Simon.** 1899 A
Ueber die Pneumaticität des Schädels bei den Säugethieren. I. Ueber den Bau des Siebbeins. Ueber die Morphologie des Siebbeins und die der Pneumaticität bei den Monotremen und den Marsupialiern.
Morpholog. Jahrbuch, xxviii, pp. 147-178, with pl. vii and 16 figs. in the text.

- Paulli, Simon**—Continued. 1900 A
Ueber die Pneumaticität des Schädels bei den Säugethieren. Eine Morphologische Studie. II. Ueber die Morphologie des Siebbeins und die der Pneumaticität bei den Ungulaten und Probosciden.
Morpholog. Jahrbuch, xxviii, pp. 179-251, with pls. viii-xiv, and 44 figs. in the text.
- 1900 B
Ueber die Pneumaticität des Schädels bei den Säugethieren. Eine Morphologische Studie. III. Ueber die Morphologie des Siebbeins und die der Pneumaticität bei den Insectivoren, Hyracoideen, Chiropteren, Carnivoren, Pinnepedien, Edentaten, Rodentien, Prosimiern, und Primaten, nebst einer zusammenfassenden Uebersicht über die Morphologie des Siebbeins und die der Pneumaticität des Schädels bei den Säugethieren.
Morpholog. Jahrbuch, xxviii, pp. 483-564, with pls. xxvii-xxix and 36 figs. in the text.
- Pavlov, A.** 1885 A
Notes sur l'histoire géologique des oiseaux.
Bull. Soc. Imp. Natur. Moscou, lx, pp. 100-123.
- Pavlov, Marie.** 1887 A
Études sur l'histoire paléontologique des ongulés en Amérique et en Europe. I. Groupe primitif de l'éocène inférieur.
Bull. Soc. Imp. Natur. Moscou (2), i, pp. 343-373, with pl. vii.
- 1888 A
Études sur l'histoire paléontologique des ongulés. II. Le développement des *Equidæ*. III. *Rhinocérider* et *Ta-piridæ*.
Bull. Soc. Imp. Natur. Moscou (2), ii, pp. 135-182, with 2 pls.
For Professor Cope's review of this paper see *Amer. Naturalist*, xxii, p. 448; for that of M. Schlosser, *Archiv f. Anthropol.*, xix, p. 159.
- 1890 A
Études sur l'histoire paléontologique des ongulés. IV. *Hipparion* de la Russie. V. Chevaux pleistocènes de la Russie.
Bull. Soc. Imp. Natur. Moscou (2), iii, pp. 653-716, with pls. vii-ix.
- 1892 A
Études sur l'histoire paléontologique des ongulés. VI. Les *Rhinocérider* de

Pavlow, Marie—Continued.

la Russie et le développement des *Rhinocerotidae* en général.

Bull. Soc. Imp. Natur. Moscou (2), vi, pp. 137-221, with pls. iii-v.

Appended is a list of 105 papers consulted by the authoress.

Reviewed by M. Schlosser in Archiv f. Anthropol., xxiii, pp. 138-139.

1892 B

Qu'est-ce que c'est que l'*Hipparion*?

Bull. Soc. Imp. Natur. Moscou (2), v, pp. 410-414.

1893 A

Note sur un nouveau crâne d'*Amy-nodon*.

Bull. Soc. Imp. Natur. Moscou (2), vii, pp. 37-42, with pl. iii.

1894 A

Les mastodontes de la Russie et leurs rapports avec les mastodontes des autres pays.

Mém. Acad. Imp. Sci. St. Pétersbourg (8), i, No. 3, pp. 1-43, with pls. i-iii.

1900 A

Études sur l'histoire paléontologique des ongulés. VII. Artiodactyles anciens.

Bull. Soc. Imp. Natur. Moscou, for 1899, pp. 263-328, with pls. v, vi.

Citations made from reprint with pp. 1-62.

Peale, Rembrandt.

1802 A

A short account of the mammoth.

Tilloch's Philos. Magazine, London, xiv, pp. 162-169.

1802 B

On the differences which exist between the heads of the mammoth and elephant.

Tilloch's Philos. Magazine, London, xiv, pp. 228-229, with pl. v.

1803 A

Account of some remains of a species of gigantic oxen found in America and other parts of the world.

Philos. Magazine, xv, pp. 325-327, with pl. vi.

Account of bones found at Bigbone-lick in Kentucky. The plate figures a portion of the skull and horn core of *Bison latifrons*.

1803 B

An historical disquisition on the mammoth, or great American incognitum, an extinct, immense, carnivorous animal whose remains have been found in North America.

8vo, pp. i-vi, 1-91, with 1 pl. London, 1803.

Pearce, J. Chaning.

1846 A

Notice of what appears to be the embryo of an *Ichthyosaurus* in the pelvic cavity of *Ichthyosaurus (communis?)*.

Ann. and Mag. Nat. Hist. (1), xvii, pp. 44-46.

Pédroni, P. M.

1844 A

Mémoire sur les poissons fossiles du département de la Gironde.

Actes Soc. Linn. de Bordeaux, xiii, pp. 277-298, with pls. i, ii.

Most of the drawings illustrating this paper are rude.

Perkins, H. C.

1842 A

Notice of fossil bones from Oregon, in a letter to Dr. C. T. Jackson.

Amer. Jour. Sci., xlii, pp. 136-140, with 4 figs.

This paper does not identify with certainty the bones described. May be *Megatherium*, *Myiodon*, or *Megalonix*, or even something else. J. A. Allen refers them with doubt to *Bison antiquus* (Allen, J. A., 1876 B, p. 21.) Leidy (1869 A, p. 397) refers some of them to the mammoth.

1844 A

Note to the editors respecting fossil bones from Oregon.

Boston Jour. Nat. Hist., iv, pp. 134-136.

Gives description of a fossil humerus, which is named *Orycterotherium oregonensis*.

Perrin, A.

1895 A

Recherches sur les affinités zoologiques de l'*Hatteria punctata*.

Ann. Sci. Naturelles (7), Zool., xx, pp. 33-102.

The author deals principally with the muscular system, but devotes a few pages (39-46) to the skeleton.

1896 A

Constitution du carpe des anoures.

Bull. Scient. France et Belgique, xxvii, pp. 419-431, pl. xvi.

Peters, Karl.

1869 A

Zur Kenntniss der Wirbelthiere aus den Miocänschichten von Eibiswald in Steiermark. I. Die Schildkrötenreste.

Denkschr. k. Akad. Wissensch. Wien, math.-naturwiss. Cl., xxix, pp. 111-124, pls. i-iii.

1869 B

Zur Kenntniss der Wirbelthiere aus den Miocänschichten von Eibiswald in Steiermark. II. *Amphicyon*, *Viverra*, *Hyotherium*.

Denkschr. k. Akad. Wissensch. Wien, math.-naturwiss. Cl., xxix, pp. 189-214, with pls. i-iii.

1870 A

Zur Kenntniss der Wirbelthiere aus den Miocänschichten von Eibiswald in

Peters, Karl—Continued.

Steiermark. III. *Rhinoceros, Anchitherium*.

Denkschr. k. Akad. Wissensch. Wien, math.-naturw. Cl. xxx, pp. 29-49, with pls. i-iii.

1895 A

Ueber die Bedeutung des Atlas der Amphibien.

Anatom. Anzeiger, x, pp. 565-574.

Contains titles of 26 papers on the subject.

Peters, Wilhelm.

1839 A

Zur Osteologie der *Hydromedusa marimiliani*.

Archiv Anat. and Physiol., Jahrg. 1839, pp. 280-295, with pl. xiv, figs. 1-4.

1839 B

Ueber die Bildung des Schildkröten-skelet.

Archiv. Anat. and Physiol. u. Wissensch. Med., 1839, pp. 290-295, with pl. xiv, figs. 5-7.

1852 A

Ueber die Gebissformel der Spitzmäuse.

Archiv f. Naturgesch., xviii, i, pp. 220-277.

1864 A

Ueber das Milchgebiss des Walrosses, *Odobenus rosmarus*.

Monatsber. k. p. Akad. Wissensch. Berlin, 1864, pp. 686-687, with 1 pl.

Plippi, E.

1897 A

Ueber *Ischyodus suvicius* nov. sp. Ein Beitrag zur Kenntniss der fossilen Holocephalen.

Paläontographica, xlv, pp. 1-10, with pls. i, ii.

Contains description and figures of *Ischyodus suvicius*.

Pictet, F. J.

1853 A

Traité de paléontologie, ou histoire naturelle des animaux fossiles considérés dans leurs rapports zoologiques et géologiques.

Second edition, i, pp. 1-xiv; 1-584, with atlas of 110 pls. 4°.

The first edition of the work was published in the year 1844.

1854 A

Traité de paléontologie, etc.

Second edition, ii, pp. 1-297. Only the pages of this volume which treat of *Vertebrata* are included here. These are devoted to the fishes.

Pictet, F. J., and Campiche, G. 1858 A

Description des fossiles du terrain crétacé des environs de Sante-Croix.

Matériaux pour la paléontologie suisse, ser. ii, art. 2, pp. 1-380, with pls. i-xliii.

Of this work pp. 29-99, inclusive, with pls. i-xii, are devoted to the vertebrates.

Pictet, F. J., Gaudin, C., and Harpe, Ph. de la. 1857 A

Mémoire sur les animaux vertébrés trouvés dans le terrain sidérolitique du Canton de Vaud et appartenant à la faune éocène.

Genève, 1855-1857, pp. 1-120, with pls. i-xiv+1.

Pictet, F. J., and Humbert, Alois.

1856 A

Monographie des chéloniens de la molasse suisse.

Matériaux pour la paléontologie suisse, ser. i, art. 3, pp. 1-71, with pls. i-xxii.

On pp. 64-66 is found a list of the tortoises of the Swiss molasse.

1866 A

Nouvelles recherches sur les poissons fossiles du Mont Liban.

Genève, 1866, pp. i-vii; 1-115, with pls. i-xix.

Pictet, F. J., and Jaccard, Auguste.

1860 A

Description de quelques débris de reptiles et de poissons fossiles trouvés dans l'étage jurassique supérieur (virgalien) du Jura neuchâtelois.

Matériaux pour la paléontologie suisse, ser. iii, art. i, pp. 1-88, with pls. i-xix.

Pleninger, Th.

1852 A

Belodon plieningeri, H. v. Meyer. Ein Saurier der Keuperformation.

Jahreshefte Ver. f. vaterl. Naturk. Württemberg, viii, pp. 389-524, with pls. viii-xiii.

Pleninger, Felix.

1895 A

Campylognathus zitteli. Ein neuer Flugsaurier aus dem Lias Schwabens.

Paläontographica, xli, pp. 193-222, with pls. xix and 8 figs. in the text.

This paper contains a very full bibliography of the pterodactyls.

Plummer, John T.

1843 A

Suburban geology, or rocks, soil, and water about Richmond, Wayne County, Ind.

Amer. Jour. Sci. (1), xlv, pp. 281-313, with 14 figs. in the text.

Refers (p. 301) to the finding of a large tusk at Brookville, Ind., and of a mastodon's tooth near Jacksonburg, Ind.

See, also, Amer. Jour. Sci., xi, 1841, p. 149.

Pohlig, Hans.

1887 A

Ueber amerikanische Elephantenmolaren.

Verhandl. Naturf. Ver. preuss. Rheinlande, xlv, Sitzungsber., pp. 117-118.

Recognizes two N. A. species, *E. primigenius* and *E. trogontherii*. The latter, the author says, may be identical with *E. columbi*.

- Pohlig, Hans**—Continued. 1887 B
Die Spitze eines sehr jugendlichen permanenten Stosszahnes von *Elephas primigenius*.
Verhandl. Naturf. Ver. preuss. Rheinlande, xlv, Sitzungsber., p. 254.
- 1889 A
Dentition und Kranologie des *Elephas antiquus* Falc, mit Beiträgen über *Elephas primigenius* Blum. und *Elephas meridionalis* Nesti.
Nova Acta Akad. Cæs. Leop.-Car., llii, pp. 1-250, with pls. i-x and 110 figs. in the text.
Reviewed by M. Schlosser in Archiv f. Anthrop., xix, pp., 127-129.
- 1892 A
Die Cerviden des thüringischen Diluvial-Travertines, mit Beiträgen über andere diluviale und über recente Hirschformen.
Palæontographica, xxxix, pp. 215-264, with pls. xxiv-xxvii.
- 1892 B
Dentition und Kranologie des *Elephas antiquus* Falc, mit Beiträgen über *Elephas primigenius* Blum. und *Elephas meridionalis* Nesti. Zweiter Abschnitt.
Nova Acta Acad. Cæs. Leop.-Car., lviii, pp. 267-466, with pls. A-E and text figs. 108-152.
Review by M. Schlosser in Archiv f. Anthrop., xxii, pp. 96-97.
- 1893 A
Le premier crane complet du *Rhinoceros (Cenopus) occidentalis*, Leidy.
Bull. Soc. Belge Géol., Paléont., Hydrol., vii, Mém., pp. 41-44, with pl. iii.
- Pollard, E. C.** 1893 A
The succession of teeth in mammals.
Natural Science, ii, pp. 360-363.
- Pollard, H. B.** 1892 A
On the anatomy and phylogenetic position of *Polypterus*.
Zool. Jahrbücher, v, pp. 387-428, with pls. xxvii-xxx and 10 figs. in the text.
- 1894 A
The cirrhostomial origin of the head in vertebrates.
Anatom. Anzeiger, ix, pp. 349-359, with 4 figs. in the text.
Discusses the derivation of the Siluroids from *Amphiorus*, *Myrine*, etc.
- 1894 B
The suspension of the jaws in fish.
Anatom. Anzeiger, x, pp. 17-25, with 5 figs.
- Pollard, H. B.**—Continued. 1895 A
The oral cirri of Siluroids and the origin of the head in vertebrates.
Zool. Jahrbücher; Abth. f. Anat., viii, pp. 379-424, pls. xxiv, xxv.
- Pomel, A.** 1847 A
Note critique sur les caractères et les limites du genre *Palæotherium*.
Arch. Sci. Phys. et Nat., Geneva, v, pp. 200-207.
- 1847 B
Sur un nouveau genre de pachydermes fossiles (*Elothierium*) voisins des Hippopotames.
Arch. Sci. Phys. et Nat. Geneva, v, pp. 307-308.
- 1847 C
Note sur des animaux fossiles découverts dans le département de l'Allier.
Bull. Soc. Géol. France (2), iv, pp. 378-385, with pl. iv.
- 1848 A
Observations paléontologiques sur les hippopotames et les cochons.
Arch. Sci. Phys. et Nat., Geneva, viii, pp. 156-162.
Treats of the species of *Hippopotamus* and of *Sus* then known.
- 1848 B
Note sur le genre *Hyopotamus* Owen et sur les Anchithériums en général.
Arch. Sci. Phys. et Nat., Geneva, viii, pp. 321-326.
- 1848 C
Études sur les carnassiers insectivores. I. Insectivores fossiles. II. Classification des insectivores.
Arch. Sci. Phys. et Nat., Genève, ix, pp. 159-165; 244-251.
- 1848 D
Description de la tête du *Castoroides ohioensis* Foster.
Arch. Sci. Phys. et Nat., Geneva, ix, pp. 165-167.
A review of Wyman, J., 1846 B.
- 1853 A
Catalogue méthodique et descriptif des vertébrés fossiles découverts dans le bassin hydrographique supérieur de la Loire, et surtout dans la vallée de son affluent principal, l'Allier.
8 vo. Paris, 1853, pp. 1-198.
- Portis, Alessandro.** 1878 A
Ueber fossile Schildkröten aus dem Kimmeridge von Hannover.
Palæontographica, xxv, pp. 125-140, with pls. xv-xviii.

- Portis, Alessandro**—Continued. 1882 A
Les chéloniens de la Molasse Vau-
doise conservés dans le Musée Géolo-
gique de Lausanne.
Abhandl. schweizer. paläontolog. Gesellsch.,
ix, pp. 1-78, pls. i-xxix.
Contains 59 titles of papers consulted.
- Fouchet, Georges.** 1886 A
Contribution à l'anatomie des Éden-
tés.
Jour. l'Anat. et Physiol., iii, pp. 113-129, 337-
353, with pls. iii, iv, ix, x.
See vol. iv, pp. 35-37, for a letter from Rich-
ard Owen to Fouchet on the above memoir.
- Fouchet, G., and Beauregard, H.**
1889 A
Recherches sur le cachalot.
Nouv. Arch. du Mus. d'Hist. Nat., Paris (3),
i, pp. 1-96, with pls. i-viii.
This portion of the authors' researches is
devoted to the osteology of *Physeter macroceph-
alus*.
- Powrie, James.** 1861 A
Cephalaspides of Forfarshire.
The Geologist, iv, pp. 137-180, with wood-
cut.
- 1864 A
The Scottish *Pteraspis*.
The Geologist, vii, pp. 170-172.
- 1864 B
On the fossiliferous rocks of Forfar-
shire and their contents.
Quart. Jour. Geol. Soc., xx, pp. 413-429, with
pl. xx.
Contains remarks on *Acanthodidae* and *Ce-
phalaspides*. New genus *Euthacanthus* (= *Cli-
matius*) is established.
- 1867 A
On the genus *Cheirolepis*, from the
Old Red sandstone.
Geol. Magazine (1), iv, pp. 147-152, with
2 figs. in the text.
- Powrie, James, and Lankester, F. Ray.**
1868 A
A monograph of the fishes of the
Old Red sandstone of Britain. Part I.
The *Cephalaspidae*, by E. R. Lankester.
Palaeontographical Society, xxi, pp. 1-83, pl.
1-v, text figs. 1-12.
- 1870 A
A monograph of the fishes of the Old
Red sandstone of Britain. Part I (con-
cluded). The *Cephalaspidae*.
Palaeontographical Society, xxiii, pp. 1-62,
pls. vi-xiv, text figs. 12-33.
- Preble, Edward A.** 1899 A
Revision of the jumping mice of the
genus *Zapus*.
N. A. Fauna, No. 15 (U. S. Dept. Agricult.),
pp. 1-42, with pl. i.
- Preyer, William.** 1862 A
Ueber *Plautus impennis* Brün. n.
Jour. für Ornithologie, x, pp. 110-124, 337-356.
- Priem, F.** 1896 A
Sur des dents de poissons du Crétacé
supérieur de France.
Bull. Soc. Géol. France (3), xxiv, pp. 288-295,
with pl. ix.
- 1897 A
Sur des dents d'Elasmobranches de
divers gisements sénoniens (Villedieu,
Meudon, Folx-les-caves).
Bull. Soc. Géol. France (3), xxv, pp. 40-56,
with pl. i.
- 1898 A
Sur des pycnodontes et des squales
du Crétacé supérieur du bassin de Paris
(Turonien, Sénonien, Montien infé-
rieur).
Bull. Soc. Géol. France (3), xxvi, pp. 229-
243, with pl. ii.
Describes new species (*Xelodus attenuatus*, and
gives figs. of *Chras pristodontus* and *Scapanor-
hynchus* (*Odontaspis*) *subulatus*).
- Prime, A. J.** 1845 A
Great American mastodon.
Amer. Quart. Jour. Agricult. and Sci., ii,
pp. 203-212, with pl. iv.
- Probst, J.** 1858 A
Ueber das Gebiss des *Notidanus*
primigenius Ag.
Jahreshefte Ver. f. vaterl. Naturk. Württem-
berg, xiv, pp. 124-127, with 10 figs. in the text.
- 1859 A
Ueber die Streifung der fossilen
Squalidenzähne.
Jahreshefte Ver. f. vaterl. Naturk. Württem-
berg, xv, pp. 100-102.
- 1878 A
Berträge zur Kenntniss der fossilen
Fische aus der Molasse von Baltringen.
Jahreshefte Ver. f. vaterl. Naturk. Württem-
berg, xxxiv, pp. 112-154, with pl. i.
- 1879 A
Berträge zur Kenntniss der fossilen
Fische aus der Molasse von Baltringen.
Jahreshefte Ver. f. vaterl. Naturk. Württem-
berg, xxxv, pp. 127-191, with pls. ii, iii.
This paper is devoted to descriptions of the
teeth of sharks.
- 1885 A
Ueber fossile Reste von *Squalodon*.
Beitrag zur Kenntniss der fossilen Reste
der Meeressäugetiere aus der Molasse
von Baltringen.
Jahreshefte Ver. vaterl. f. Naturk. Württem-
berg, xli, pp. 49-67, with pl. i.

- Probst, J.—Continued.** 1886 A
Ueber die fossilen Reste von Zahnwalen (Cetodonten) aus der Molasse von Baltringen.
Jahreshefte Ver. vaterl. f. Naturk. Württemberg, xlii, pp. 102-145, with pl. iii.
- Prout, H. A.** 1846 A
Gigantic Palæotherium.
Amer. Jour. Sci. (2), ii, pp. 288-289, with 1 fig. in the text.
- 1847 A
Description of a fossil maxillary bone of a *Palæotherium* from near White River.
Amer. Jour. Sci. (2), iii, pp. 248-250, with 2 figs. in the text.
- 1860 A
[Remarks of Dr. Prout on a fossil tooth found at King's salt works, near Abingdon, Va.]
Trans. Acad. Sci. St. Louis, i, pp. 699-700.
On this tooth the genus *Leidyotherium* was proposed without any specific name. It appears to be quite probable that there was an error regarding the locality.
- Putnam, F. W.** 1884 A
Man and the mastodon.
Science, iv, p. 112.
Refers to Plummer, J. T., 1843 A.
- 1885 A
Man and the mastodon.
Science, vi, pp. 375-376.
- Pycraft, W. P.** 1894 A
The wing of *Archæopteryx*. Part I.
Natural Science, v, pp. 350-360, with pls. i-iii.
- 1896 A
The wing of *Archæopteryx*.
Natural Science, viii, pp. 261-266, with 3 figs. in the text.
- 1898 A
Contributions to the osteology of birds. Part I. *Steganopodes*.
Proc. Zool. Soc. Lond., 1898, pp. 82-101, with pls. vii, viii, and 8 figs. in the text.
- 1899 A
Contributions to the osteology of birds. Part III. *Tubinares*.
Proc. Zool. Soc. Lond., 1899, pp. 381-411, with pls. xxii, xxiii, and 2 text figs.
- Quart. Jour. Geol. Sci.** 1845 A
Notice of a mastodon recently discovered in North America.
Quart. Jour. Geol. Soc., i, pp. 566-567.
An extract "from an American paper," referring to the Newburgh, N. Y., mastodon.
- Quenstedt, Fr. Aug.** 1847 A
Ueber *Lepidotus* im Lias E. Württemberg.
Pp. 1-24, with pls. i, ii. Tübingen, 1847.
Description of *Lepidotus crenatis*, Blv.
- 1850 A
Ueber *Hippotherium* der Bohnenerze.
Jahreshefte Ver. f. vaterl. Naturk. Württemberg, vi, pp. 164-185, with pl. i.
This volume, it is stated on the title-page, was not issued until 1854.
- 1850 B
Die Mastodonsaurier im grünen Keupersandsteine Württemberg's sind Batrachier.
Pp. 1-34, with pls. i-iv, Tübingen, 1850.
- 1852 A
Handbuch der Petrefactenkunde.
Pp. 1-792, with 62 pls. Tübingen, 1852.
Pp. 1-258, with pls. 1-19, are devoted to the *Vertebrata*. A second edition of this work was published in 1866. A third edition of 1,230 pages and 100 pls. appeared in 1885.
- 1858 A
Ueber *Pterodactylus liasicus*.
Jahreshefte Ver. f. vaterl. Naturk. Württemberg, xiv, pp. 299-310, with pl. ii, fig. 1.
- 1885 A
Handbuch der Petrefactenkunde. Dritte umgearbeitete und vermehrte Auflage.
Tübingen, 1885, pp. i-viii, 1-1239, with an atlas of 100 pls. and explanations and 443 figs. in the text.
Of this work pp. 19-392 are devoted to the *Vertebrata*.
- 1889 A
Psammochelys keuperina.
Jahreshefte Ver. f. vaterl. Naturk. Württemberg, xlv, pp. 120-130, with pls. i, ii.
- Rapp, Wilhelm.** 1852 A
Anatomische Untersuchungen über die Edentaten. Mit 10 Steindrucktafeln. 2te Auflage.
Pp. 1-108. Tübingen, 1852.
Treats of the anatomy, including the osteology, of the living *Edentata*.
- Rathke, Heinrich.** 1853 A
Ueber den Bau und die Entwicklung des Brustbeins der Saurier.
Pp. 1-26, Königsberg, 1853.
A translation of this work will be found in Parker, W. K., 1868 A.
- Redfield, John Howard.** 1837 A
Fossil fishes of Connecticut and Massachusetts, with a notice of an undescribed genus.
Annals Lyc. Nat. Hist. N. Y., iv, pp. 35-40.

- Bedfield, W. C.** 1838 A
Newly discovered ichnolites.
Amer. Jour. Sci., xxxiii, pp. 201-202.
-
- 1838 B
Fossil fishes in Virginia.
Amer. Jour. Sci., xxxiv, p. 201.
-
- 1839 A
Fossil fishes of the Red sandstone.
Amer. Jour. Sci., xxxvi, pp. 186-187.
Mentions only *Catopterus gracilis* and *Paleontiscus*, species not determined.
-
- 1841 A
Short notices of American fossil fishes.
Amer. Jour. Sci. (1), xli, pp. 24-28.
-
- 1843 A
Notice of newly discovered fish beds and a fossil footmark in the Red sandstone formation of New Jersey.
Amer. Jour. Sci. (1), xlii, pp. 134-136, with 1 fig. in text.
-
- 1850 A
On some fossil remains from Broome County, N. Y.
Proc. Amer. Assoc. Adv. Sci., 2d meeting, Cambridge, Mass., pp. 255-256.
Vulpes obtained from clay beneath drift.
-
- 1853 A
On the geological age and affinities of the fossil fishes which belong to the sandstone formation of Connecticut, New Jersey, and the coal field near Richmond, in Virginia.
Annals of Science (Cleveland, Ohio), 1, pp. 270-271.
Abstract of communication made to the Amer. Assoc. Adv. Sci.
-
- 1856 A
On the relations of the fossil fishes of the sandstone of the Connecticut and other Atlantic States to the Liassic and Oolitic periods.
Amer. Jour. Sci. (2), xxii, pp. 357-363.
-
- 1857 A
On the relations of the fossil fishes of the sandstone of Connecticut and other Atlantic States to the Liassic and Jurassic periods.
Proc. Amer. Assoc. Adv. Sci., 10th meeting, Albany, 1856, pp. 180-188.
- Beh, L.** 1894 A
Die Gliedmassen der Robben.
Jenaische Zeitschr. Naturwiss., xxviii (xxi), pp. 1-44, with pl. 1.
Appended is a list of papers, 36 in number, which bear on the subject discussed.
- Beh, L.—Continued.** 1895 A
Die Schuppen der Säugetiere.
Jenaische Zeitschr. Naturwiss., xxix (xxii), pp. 157-220, with pl. 1.
Appended is a list of papers bearing on the subject, 90 in number.
- Reichenow, Anton.** 1871 A
Die Fussbildungen der Vögel.
Jour. für Ornithologie, xix, pp. 401-458, with pl. vi.
- Reichert, C. B.** 1865 A
Ueber ein Schädel-fragment des *Glyptodon*.
Archiv Anat. Physiol. u. wissenschaft. Med., 1865, p. 336.
- Reinhardt, J.** 1866 A
Ueber den Hautpanzer der megatheroiden Thiere.
Archiv Anat. Physiol. u. wissenschaft. Med., 1866, pp. 414-415.
-
- 1874 A
Sur les anomalies des vertèbres sacrées chez les crocodiliens.
Jour. de Zoologie, iii, pp. 308-312.
-
- 1875 A
De i Brasiliens Knoglehuler fundne Glyptodont-Levninger og en ny, til de gravigrade Edentater hørende Slægt.
Vidensk. Meddel. naturh. Forening Kjöbenhavn, 1875, pp. 165-236, with pl. iv.
-
- 1879 A
Beskrivelse af Hovedskallen af et Kæmpedovendyr, *Grypotherium darwini*, fra La Plata-Landenes plejstocene Dannelser.
Danske Vidensk. Selskab. Skr. (5), xii, pp. 353-374, with pls. i, ii, and résumé in French, pp. 375-379.
-
- 1880 A
De i brasilianske Knoglehuler fundne Navlesvin-Arter.
Vidensk. Meddel. naturh. Forening, Kjöbenhavn, 1880, pp. 3-33, with pl. vii.
Describes as new *Dicotyles stenocephalus* and compares it with North American species.
- Reis, Otto M.** 1888 A
Die Cretaceen, mit besonderer Berücksichtigung der im Weissen Jura Bayerns vorkommenden Gattungen.
Paläontographica, xxxv, pp. 1-96, with pls. i-v.
-
- 1892 A
Ueber die Zurechnung der Acanthodier zu den Selachiern.
Sitzungsber. Gesellsch. naturf. Freunde Berlin, 1892, pp. 153-156.
Followed by remarks in reply by Dr. Otto Jaekel.

- Reis, Otto M.**—Continued. 1895 A
On the structure of the frontal spine and the rostro-labial cartilages of *Squaloraja* and *Chimæra*.
Geol. Magazine (4), II, pp. 385-391, pl. xii.
- 1895 B
Illustrationen zur Kenntniss des Skelets von *Acanthodes bronni* Agassiz.
Abhandl. senckenb. naturforsch. Gesellsch., xix, pp. 49-64, with pls. I-vi.
- 1895 C
Palæontologische Beiträge zur Stammesgeschichte der Teleostier.
Neues Jahrb. Mineral., 1895, I, Abhandl., pp. 162-182.
- 1896 A
Ueber *Acanthodes bronni* Agassiz.
Schwalbe's Morpholog. Arbeiten, vi, pp. 143-220, pls. vi, vii, and 2 figs. in the text.
For review of this paper see A. Tornquist, in Zoolog. Centralbl., i, pp. 649-656.
- 1897 A
Das Skelet der Pleuracanthiden und ihre systematischen Beziehungen.
Abhandl. senckenb. naturforsch. Gesellsch., xx, pp. 57-155, with pl. I.
Reviewed by Tornquist, Zoolog. Centralbl., v, 1898, pp. 472-474.
- Reissner, E.** 1859 A
Ueber die Schuppen von *Polypterus* und *Lepidosteus*.
Archiv. Anat. Physiol. u. wissenschaft. Med., 1859, pp. 259-268, with pl. v, A.
- Renevier, E.** 1879 A
Les *Anthracotherium* de Rochette.
Bull. Soc. Vaudoise, Sci. Nat. (2), xvi, pp. 140-148, with pls. iv-viii.
- Reuss, August Em.** 1846 A
Die Versteinerungen der böhmischen Kreideformation. Abth. I.
Pp. I-iv, 1-58, with I-xiii, Stuttgart. 4to.
Of this "Abtheilung" only pp. 1-13 are devoted to the *Vertebrata*, and these are all fishes.
- Rhoads, Samuel N.** 1894 A
A contribution to the life history of the Allegheny cave rat, *Neotoma magister*.
Proc. Acad. Nat. Sci. Phila., 1894, pp. 213-221.
- 1895 A
Distribution of the American bison in Pennsylvania, with remarks on a new fossil species.
Proc. Acad. Nat. Sci. Phila., 1895, pp. 244-248.
Describes new species, *B. appalachicolus*.
- Rhoads, Samuel N.**—Cont'd. 1897 A
Notes on living and extinct species of North American *Borida*.
Proc. Acad. Nat. Sci. Phila., 1897, pp. 452-502, with pls. xii.
- 1898 A
Notes on the fossil walrus of North America.
Proc. Acad. Nat. Sci. Phila., 1898, pp. 196-201.
- Rice, Franklin P.** 1885 A
An account of the discovery of a mastodon's remains in Northborough, Worcester County, Mass.
Worcester, Mass., 1885. Pp. 3-8, with 1 pl.
- Richardson, John.** 1854 A
The zoology of the voyage of H. M. S. *Herald*. Vertebrates, including fossil mammals.
Pp. 172; pls. i-xxxiii. London, 1854.
- 1854 B
Extract from the "Zoology of the *Herald*" on the mastodon found in the Swan River region.
Proc. Boston Soc. Nat. Hist., v, pp. 82-84.
- 1855 A
Note on the *Mastodon* (?) and the *Elephas primigenius*.
Amer. Jour. Sci. (2), xix, pp. 131-132.
- Ridewood, W. G.** 1895 A
The teeth of the horse.
Natural Science, vi, pp. 249-258, with figs.
Describes and illustrates the dentition of the horse from six months before birth to old age.
- Riese, Heinrich.** 1892 A
Beitrag zur Anatomie des *Tylotriton verrucosus*.
Zool. Jahrbücher Abth. Anat. und Ontog., pp. 99-154, with pl. 9-11.
- Riggs, Elmer S.** 1896 A
Hoplophoneus occidentalis.
Kansas Univ. Quarterly, v, pp. 37-62, with pl. I.
- 1896 B
A new species of *Dinictis* from the White River Miocene of Wyoming.
Kansas Univ. Quarterly, iv, pp. 237-241, with 1 fig. in the text. Describes *D. paucidentis*, sp. nov.
- 1898 A
On the skull of *Amphictis*.
Amer. Jour. Sci. (4), v, pp. 257-259, with 2 figs. in the text.
- 1899 A
The *Mylagaulidae*: an extinct family of sciouromorph rodents.
Pubs. Field Columb. Mus., Geol., I, pp. 182-187, with text figs.

- Riggs, Elmer S.**—Continued. 1900 A
Fossil hunting in Wyoming.
Science (2), xi, pp. 233-234.
Mentions Prof. F. A. Lucas's identification of
Labrosaurus with *Antrodemus*.
- Riley, Henry, and Stutchbury, Samuel.** 1838 A
A description of various fossil re-
mains of three distinct saurian animals
recently discovered in the Magnesian
Conglomerate near Bristol.
Trans. Geol. Soc. Lond. (2), v, pp. 349-357,
with pls. xxix, xxx.
A brief abstract is given in Neues Jahrb.
Mineral., 1841, pp. 607-609.
- Ringueberg, Eug. N. S.** 1884 A
A new *Dinichthys* from the Portage
Group of western New York.
Amer. Jour. Sci. (3), xxvii, pp. 476-478, with 2
figs. in the text.
Describes *D. minor*, not *D. minor* of New-
berry; later called *D. ringuebergi* by Newberry.
- Roberts, G. E.** 1864 A
On some remains of *Bothriolepis*.
Report Brit. Assoc. Adv. Sci., 33d meeting,
Newcastle-on-Tyne, 1863, p. 87.
- Rochebrune, A. J.** 1880 A
Revision des ophiidiens fossiles du
Muséum d'Histoire Naturelle
Nouv. Arch. du Mus. d'Hist. Na. Paris (2),
iii, pp. 271-296.
- 1881 A
Mémoire sur les vertèbres des ophi-
diens.
Jour. l'Anat. et Physiol., xvii, pp. 186-229,
with pls. xiv, xv, and 18 figs. in the text.
- Roemer, Ferdinand.** 1849 A
Texas: Mit besonderer Rücksicht
auf deutsche Auswanderung und die
physischen Verhältnisse des Landes.
Mit einem naturwissenschaftlichen An-
hange und einer topographisch-geog-
nostischen Karte von Texas.
Pp. i-xv, 1-464, Bonn, 1849.
On pp. 419-420 are found descriptions of
Lamnatexana, and the genus *Ancistrodon* Debey.
Otodus appendiculatus, *Oxyrhina mantelli* and
Corax heterodon are mentioned.
- 1852 A
Die Kreidebildungen von Texas und
ihre organischen Einschlüsse. Mit
einem die Beschreibung von Verstein-
erungen aus paläozoischen und tertiären
Schichten enthaltenden Anhang und
mit 11 von C. Hohe nach der Natur
auf Stein gezeichneten Tafeln.
Pp. i-vii, 1-100, Bonn, 1852.
- Roemer, Ferdinand**—Cont'd. 1856 A
Palæoteuthis, eine Gattung nackter
Cephalopoden in devonischen Schich-
ten der Eifel.
Palæontographica, iv, pp. 72-74, with pl. xlii.
Describes *Palæoteuthis dunensis*.
- 1857 A
Ueber Fisch- und Pflanzen-führende
Mergelschiefer des Rothliegenden bei
Klein-Weundorf unweit Löwenberg,
und im Besonderen über *Acanthodes*
gracilis, den am häufigsten in denselben
vorkommenden Fisch.
Zeitschr. deutsch. geol. Gesellsch., ix, pp.
51-84, with pl. iii.
- 1865 A
Ueber das Vorkommen von *Rhizodus*
hibberti Owen (*Megalichthys hibberti*
Agassiz et Hibbert) in den Schiefer-
thonen des Steinkohlengebirges von
Volpersdorf in der Grafschaft Glatz.
Zeitschr. deutsch. geol. Gesellsch., xvii, pp.
272-276, with pl. vi.
The species here called *Rhizodus hibberti* is
renamed *Rhizodopsis robusta* by A. S. Wood-
ward.
- 1890 A
Zur Frage nach dem Ursprunge der
Schuppen der Säugetiere.
Anatom. Anzeiger, viii, pp. 526-532.
- 1892 A
Ueber den Bau und die Entwicklung
des Panzers der Gürteltiere.
Jenaische Zeitschr. Naturwiss., xxvii (xx),
pp. 513-556, with pls. xxiv and xxv.
- Röse, C.** 1892 A
Zur Phylogenie des Säugetiergebisses.
Biolog. Centralbl., xii, pp. 624-638.
Abstract by M. Schlosser in Archiv f. An-
throp., xxiii, p. 163.
- 1892 B
Ueber Zahnbau und Zahnwechsel
der Dipnoer.
Anatom. Anzeiger, vii, pp. 821-839, with 10
figs. in the text.
- 1892 C
Ueber die Zahnentwicklung der Kro-
codile.
Verhandl. Anat. Gesellsch., 6th meeting,
Vienna, 1892, pp. 225-226.
- 1892 D
Beiträge zur Zahnentwicklung der
Elefantaten.
Anatom. Anzeiger, vii, pp. 495-512, with 14
text figs.

Röse, C.—Continued. 1892 E
 Ueber die Zahnentwicklung der
 Beuteltiere.
 Anatom. Anzeiger, vii, pp. 639-650; 693-707,
 with 23 text figs.

1893 A
 Ueber den Zahnbau und Zahnwechsel
 von *Elephas indicus*.

Schwalbe's Morpholog. Arbeiten, iii, pp.
 173-194, pl. x and 2 text figs.

Abstract of, by M. Schlosser, in Archiv f.
 Anthropol., xxiv, pp. 137-138.

Contains citations of the literature of the
 subject.

1893 B
 Ueber die Zahnentwicklung der *Croc-
 odilia*.

Schwalbe's Morpholog. Arbeiten, iii, pp.
 195-228, with 45 figs. in the text.

1893 C
 Ueber die Deutung des Milchgebisses
 der Säugethiere.

Verhandl. deutsch. odontolog. Gesellsch.,
 iv, pp. 308-310, with 1 text fig.

Preceded by a paper on same subject by Dr.
 M. Schlosser.

1894 A
 Ueber die Zahnentwicklung von
Chlamydoselachus anguineus Garman.
 Schwalbe's Morpholog. Arbeiten, iv, pp.
 193-206, with 12 figs. in the text.

1894 B
 Ueber die Zahnentwicklung der
 Fische.
 Anatom. Anzeiger, ix, pp. 653-662, with 8
 figs. in the text.

1895 A
 Das Zahnsystem der Wirbelthiere.
 Merkel and Bonnet's Anat. Hefte, Ergeb-
 nisse, iv, 1894, pp. 542-591.

List of 248 titles of papers bearing on the
 subject.

Reviewed by M. Schlosser in Archiv f. An-
 thropol., xxv, pp. 193-195.

1897 A
 Ueber die verschiedenen Abänder-
 ungen der Hartgewebe bei niederen
 Wirbeltieren.

Anatom. Anzeiger, xiv, pp. 33-69, with 28
 figs. in the text.

Röse, C., and Bartels, O. 1896 A
 Ueber die Zahnentwicklung des
 Rindes.

Schwalbe's Morpholog. Arbeiten, vi, pp.
 49-118, with 39 figs. in the text.

Reviewed by M. Schlosser in Archiv f. An-
 thropol., xxv, pp. 234-235.

Roger, Otto. 1887 A
 Ueber die Hirsche.
 Correspondenzblatt Vereins Regensb., 1887,
 Sept., p. 43, with 2 pls.

1889 A
 Ueber die Umbildungen des Säugethierskeletes und die Entwicklungsgeschichte der Pferde.

Abhandl. Vereins Regensb., 1889, p. 35.

Reviewed by M. Schlosser in Archiv f. An-
 thropol., xx, pp. 152-154.

1896 A
 Verzeichniss der bisher bekannten
 fossilen Säugethiere. Neu zusammen-
 gestellt von Dr. Otto Roger, kgl. Re-
 gierungs- und Kreis-Medizinrath in
 Augsburg.

Bericht naturwiss. Vereins f. Schwaben und
 Neuburg (a. V.), xxxii, pp. 1-272.

This is a systematic list of described fossil
 vertebrates, with references to places of pub-
 lication of descriptions.

Rogers, Henry D. 1842 A

Report on the *Ornithichnites*, or foot-
 marks of extinct birds in the New Red
 sandstone of Massachusetts and Con-
 necticut, observed and described by
 Prof. Hitchcock, of Amherst. Signed
 by H. D. Rogers, Lardner Vanuxum,
 Richard C. Taylor, Ebenezer Emmons,
 T. A. Conrad.

Ann. Nat. Hist., viii, pp. 235-238.

1845 A
 Remarks upon the bones of *Zeuglo-
 don*.

Proc. Boston Soc. Nat. Hist., ii, p. 79.

1851 A
 On the position and characters of the
 reptilian footprints in the Carbonif-
 erous red-shale formation of eastern
 Pennsylvania.

Proc. Amer. Assoc. Adv. Sci., 4th meeting,
 New Haven, 1850, pp. 250-251.

1854 A
 Communication on the epoch of the
 mammoth.

Proc. Boston Soc. Nat. Hist., v, pp. 22-23.

1855 A
 Remarks on fossil footprints found
 in Carboniferous sandstones of Penn-
 sylvania.

Proc. Boston Soc. Nat. Hist., v, pp. 182-186.

1865 A
 On a peculiar fossil found in the
 Mesozoic sandstone of the Connecticut

Rogers, Henry D.—Continued.

valley, discovered by Prof. W. B. Rogers.

Report Brit. Assoc. Adv. Sci., 34th meeting, Bath, 1864, p. 66.

Zoological position of fossil not determined.

Bohon, J. Victor. 1889 A

Ueber fossile Fische.

Mém. Acad. Imp. Sci., St. Pétersbourg (7), xxxvi, No. 73, pp. 1-17; pls. i, ii.

Contains remarks on the structure of the teeth of *Acanthodes* and *Palæoniscus*, with illustrations.

1889 B

Die Dendrodonten des devonischen Systems in Russland. Palæontologische und vergleichend-anatomische Studie.

Mém. Acad. Imp. Sci., St. Pétersbourg (7), xxxvi, No. 14, pp. 1-52, with pls. i, ii and 1 text fig. giving a restoration of *Dendrodus*.

1891 A

Ueber *Pterichthys*.

Verhandl. russ.-kais. mineralog. Gesellschaft. St. Petersburg (2), xxviii, pp. 292-315, with pl. vii.

1892 A

Ueber devonische Fische vom oberen Jenissei nebst Bemerkungen über die Wirbelsäule devonischer Ganoiden.

Mélanges géol. et paléont. Acad. Imp. Sci. St. Pétersbourg, vol. i, pp. 17-34, with 1 pl.

This paper was published earlier in Bull. Acad. St. Pétersbourg (2), i, 1890, pp. 393-410.

1892 B

Holoptychius-Schuppen in Russland.

Mélanges géol. et paléont. Acad. Imp. Sci. St. Pétersbourg, i, pp. 35-56, with 1 pl.

1892 C

Die obersilurische Fische von Oesel. I Theil, *Thyestidae* und *Tremataspidae*.

Mém. Acad. Imp. Sci. St. Pétersbourg (7), xxxviii, No. 13, pp. 1-88, with pls. i-ii.

1893 A

Die obersilurischen Fische von Oesel. II Theil, *Selachii*, *Dipnoi*, *Ganoidei*, *Pteraspidae* und *Cephalaspidae*.

Mém. Acad. Imp. Sci. St. Pétersbourg (7), xli, No. 5, pp. 1-124, with pls. i-iii and 29 text figs.

1894 A

Metamerie am Primordial-cranium palæozoischer Fische.

Zoolog. Anzeiger, xvii, pp. 51-52.

A brief communication regarding the metamerism of the primordial skull of *Thyestes* and *Tremataspis*.

Bohon, J. Victor—Continued. 1894 B

Zur Kenntnis der Tremataspiden (Nachtrag zu den Untersuchungen über "Die obersilurischen Fische von Oesel").

Mélanges géol. et paléont. Acad. Imp. Sci. St. Pétersbourg, vol. i, pp. 177-201, with 2 pls.

1895 A

Beitrag zur Kenntniss der Gattung *Ptyctodus*.

Verhandl. russ.-kais. mineralog. Gesellschaft. St. Petersburg (2), xxxiii, pp. 1-16, with pl. i.

1895 B

Die Segmentirung am Primordial-cranium der obersilurischen Thyestiden.

Verhandl. russ.-kais. mineralog. Gesellschaft. St. Petersburg (2), xxxiii, pp. 17-64, with pl. ii.

1896 A

Weitere Mittheilungen über die Gattung *Thyestes*.

Bull. Acad. Imp. Sci. St. Pétersbourg, iv, pp. 223-235, with 1 pl.

1896 B

Beiträge zur Classification der palæozoischen Fische.

Sitzungsber. k. böhm. Gesellschaft. Wissensch., math.-naturw. Cl., 1896, ii, art. xxxvii, pp. 1-33, with 8 text figs.

1898 A

Bau der obersilurischen Dipnoer-Zähne.

Sitzungsber. k. böhm. Gesellschaft. Wissensch., math.-naturw. Cl., 1898, art. xi, pp. 1-17, with plate of 11 figs.

Romanovski, G.

1853 A

Ueber eine neue Gattung versteinelter Fisch-Zähne.

Bull. Soc. Imp. Natur. Moscou, xxvi, pt. i, pp. 405-409, with pl. viii.

Describes genus *Dicrenodus*, type *D. okensis*.

1857 A

Ueber die Verschiedenheit der beiden Arten: *Chilodus tuberosus* Gieb. und *Dicrenodus okensis* Rom.

Bull. Soc. Imp. Natur. Moscou, xxx, pt. i, pp. 230-235, with 4 text figs.

1864 A

Description de quelques restes de poissons fossiles trouvés dans le calcaire carbonifère du gouvernement de Toula.

Bull. Soc. Imp. Natur. Moscou, xxxvii, pt. 2, pp. 157-170, with pls. iii, iv.

- Rosenberg, Emil.** 1891 A
Ueber einige Entwicklungsstadien des Handskelets der *Emys lutaria marsili*.
Morpholog. Jahrbuch, xviii, pp. 1-34, with pl. 1.
In the footnotes are found numerous references to the literature bearing on the subject.
- Rouault, Marie.** 1858 A
Note sur les vertébrés fossiles des terrains sédimentaires de l'ouest de la France.
Comptes rend. Acad. Sci. Paris, xlvii, pp. 99-103.
The genus *Nummoplatys* is here established, p. 101.
- Buddick, W. H.** See **Kingsley and Buddick.**
- Rütimeyer, L.** 1857 A
Ueber schweizerische Anthracotherien.
Verhandl. naturf. Gesellsch. Basel, i, pp. 385-403.
- 1857 B
Ueber lebende und fossile Schweine.
Verhandl. naturf. Gesellsch. Basel, i, pp. 517-564.
- 1857 C
Ueber *Anthracotherium magnum* und *hippoideum*.
Neue Denkschr. schweizer. Gesellsch. Naturwiss., xv, art. viii, pp. 1-32, with pls. i, ii.
- 1862 A
Beiträge zur Kenntniss der fossilen Pferde und zur vergleichenden Odontographie der Huftiere überhaupt.
Verhandl. naturf. Gesellsch. Basel, iii, pp. 558-696, with pls. 1-iv.
- 1862 B
Die Fauna der Pfahlbauten der Schweiz.
Neue Denkschr. schweizer. Gesellsch. Naturwiss., ix, pp. 1-248, with pls. 1-vi.
- 1865 A
Beiträge zu einer paläontologischen Geschichte der Wiederkauer, zunächst an Linné's Genus *Bos*.
Verhandl. naturf. Gesellsch. Basel, iv, pp. 299-354.
- 1867 A
Die fossilen Schildkröten von Solothurn.
See Lang, Fr., and Rütimeyer, L., 1867 A.
- 1867 B
Versuche einer natürlichen Geschichte des Rindes, in seinen Beziehungen zu
- Rütimeyer, L.**—Continued.
den Wiederkauern im Allgemeinen. Erste Abth.
Neue Denkschr. schweizer. Gesellsch. Naturwiss., xxii, pp. 1-102, with pls. 1, ii.
- 1868 A
Versuch einer natürlichen Geschichte des Rindes, in seinen Beziehungen zu den Wiederkauern im Allgemeinen. Zweite Abth.
Neue Denkschr. schweizer. Gesellsch. Naturwiss., xxiii, pp. 1-175, with pls. i-iv, and 25 figs. in the text.
- 1873 A
Die fossilen Schildkröten von Solothurn und der übrigen Juraformation. Mit Beiträgen zur Kenntniss von Bau und Geschichte der Schildkröten im Allgemeinen.
Neue Denkschr. schweizer. Gesellsch. Naturwiss., xxv, art. 2, pp. 1-185, with pls. i-xvii.
- 1874 A
Ueber den Bau von Schale und Schädel bei lebenden und fossilen Schildkröten, als Beitrag zu einer paläontologischen Geschichte dieser Thiergruppe.
Verhandl. naturf. Gesellsch. Basel., vi, pp. 1-187.
- 1875 A
Weitere Beiträge zur Beurtheilung der Pferde der Quaternär-Epoche.
Abhandl. schweizer. paläontolog. Gesellsch., ii, pp. 1-34, with 3 pls.
Contains discussion of the teeth of living species of horses.
- 1877 A
Die Rinder der Tertiär-Epoche, nebst Vorstudien zu einer natürlichen Geschichte der Antilopen. Erster Theil. Mit drei Doppeltafeln.
Abhandl. schweizer. paläontolog. Gesellsch., iv, pp. 1-72.
- 1878 A
Die Rinder der Tertiär-Epoche, nebst Vorstudien zu einer natürlichen Geschichte der Antilopen. Zweiter Theil. Mit vier Doppeltafeln nebst Holzschnitten.
Abhandl. schweizer. paläontolog. Gesellsch., v, pp. 1-208.
- 1881 A
Beiträge zu einer natürlichen Geschichte der Hirsche. I Theil.
Abhandl. schweizer. paläontolog. Gesellsch., vii, pp. 1-8; viii, pp. 9-96, with 4 pls.
Introduction, with pls. 1 and ii in vol. vii. 1880.

- Rütimeyer, L.**—Continued. 1882 A
 Studien zu der Geschichte der Hirschfamilie. I. Schädelbau.
 Verhandl. naturf. Gesellsch. Basel, vii, pp. 3-61.
- 1883 A
 Beiträge zu einer natürlichen Geschichte der Hirsche.
 Abhandl. schweizer. paläontolog. Gesellsch., x, pp. 1-120, with pls. v-x.
- 1884 A
 Studien zu der Geschichte der Hirschfamilie. II. Gebiss.
 Verhandl. naturf. Gesellsch. Basel, vii, pp. 309-464.
- 1888 A
 Ueber einzige Beziehungen zwischen den Säugethierstämmen alter und neuer Welt. Erster Nachtrag zu der eocänen Fauna von Egerkingen.
 Abhandl. schweizer. paläontolog. Gesellsch., xv, pp. 1-63, pl. 1.
 Reviewed by M. Schlosser in Archiv f. Anthrop., xix, pp. 141-145.
- 1890 A
 Uebersicht der eocänen Fauna von Egerkingen nebst einer Erwiderung an Prof. E. D. Cope. Zweiter Nachtrag zu der eocänen Fauna von Egerkingen (1862).
 Abhandl. schweizer. paläontolog. Gesellsch., xvii, pp. 1-24.
 See also Verhandl. naturf. Gesellsch. Basel, 1891, ix, pp. 331-362. For review by M. Schlosser, see Archiv f. Anthrop., xx, pp. 113-114.
 Contains a discussion of foot structure.
- 1891 A
 Die eocäne Säugethier-Welt von Egerkingen. Gesammt Darstellung und dritter Nachtrag zu den "Eocänen Säugethiern aus dem Gebiet des schweizerischen Jura (1862)."
 Abhandl. schweizer. paläontolog. Gesellsch., xviii, pp. 1-153, with pls. I-viii.
 Reviewed by M. Schlosser in Archiv f. Anthrop., xxiii, pp. 139-141.
- 1892 A
 Die eocänen Säugethiere von Egerkingen.
 Verhandl. naturf. Gesellsch. Basel, x, pp. 101-129, with figs. A-I in the text.
 Discusses the teeth of *Mammalia* and the relationships of the mammals of Egerkingen to those of the American Eocene.
 See also Lang and Rütimeyer.
- Ryder, John A.** 1877 A
 On the evolution and homologies of the incisors of the horse.
 Proc. Acad. Nat. Sci. Phila., 1877, pp. 152-154.
- 1877 B
 On the laws of digital reduction.
 Amer. Naturalist, xi, pp. 603-607.
- 1878 A
 On the mechanical genesis of tooth-forms.
 Proc. Acad. Nat. Sci. Phila., 1878, pp. 45-80, with 11 figs. in the text.
 Reviewed in Amer. Naturalist, xiii, pp. 446-449.
- 1879 A
 Further notes on the mechanical genesis of tooth-forms.
 Proc. Acad. Nat. Sci. Phila., 1879, pp. 47-51.
- 1879 B
 On the origin of bilateral symmetry and the numerous segments of the soft rays of fishes.
 Amer. Naturalist, xiii, pp. 41-43.
- 1885 A
 On the morphology and evolution of the tails of osseous fishes.
 Proc. Amer. Assoc. Adv. Sci., 33d meeting, Phila., 1884, pp. 532-533.
 Abstract of paper read.
- 1885 B
 The development of the rays of osseous fishes.
 Amer. Naturalist, xix, pp. 200-204, with 5 figs.
- 1885 C
 On the translation forwards of the rudiments of the pelvic fins of physoclist fishes.
 Amer. Naturalist, xix, pp. 315-317.
- 1885 D
 On the probable origin, homologies, and development of the flukes of cetaceans and sirenians.
 Amer. Naturalist, xix, pp. 515-519.
- 1886 A
 On the origin of heterocercy and the evolution of the fins and fin rays of fishes.
 Report U. S. Fish Com. for 1884, pp. 981-1107, pls. i-xi.
- 1890 A
 The continuity of the primary matrix of the scales and the actinotrichia of Teleosts.
 Amer. Naturalist, xxiv, pp. 489-491.

Ryder, John A.—Continued. 1892 A
On the mechanical genesis of the scales of fishes.

Proc. Acad. Nat. Sci. Phila., 1892, pp. 219-224, with 3 figs. in the text.

See notice of, in Amer. Naturalist, xxvii, p. 391.

Reprinted in Ann. and Mag. Nat. Hist. (6), xi, pp. 243-248.

Safely, Robert. 1866 A
Discovery of mastodon remains at Cohoes, N. Y.
Amer. Jour. Sci. (2), xiii, p. 426.

Safford, J. M. 1853 A.
Tooth of *Getalodus ohioensis*.
Amer. Jour. Sci. (2), xvi, p. 142, with 2 figs. in the text.
"Getalodus" is an evident misprint for *Petalodus*.

1892 A
The pelvis of a *Megalonyx* and other bones from Big Bone Cave, Tennessee.
Bull. Geol. Soc. America, iii, pp. 121-123.

1892 B
Exhibition of certain bones of the *Megalonyx* not before known.
Proc. Amer. Assoc. Adv. Sci., 40th meeting, Washington, 1891, p. 289.
Abstract of Safford, 1892 A.

Sagemehl, M. 1883 A
Beiträge zur vergleichenden Anatomie der Fische. I. Das Cranium von *Amia calva* L.
Morpholog. Jahrbuch, ix, pp. 177-228, with pl. x.

1884 A
Beiträge zur vergleichenden Anatomie der Fische. III. Das Cranium der Characiniden nebst allgemeinen Bemerkungen über die mit einem Weber'schen Apparat versehenen Physostomenfamilien.
Morpholog. Jahrbuch, x, pp. 1-119, with pls. i and ii and 1 woodcut.

1891 A
Beiträge zur vergleichenden Anatomie der Fische.
Morpholog. Jahrbuch, xvii, pp. 489-595, with pls. xxviii-xxix.
Contains numerous citations of the literature of the subject.

St. Hilaire, Geoffroy, 1809 A
Sur les tortues molles, nouveau genre sous le nom de *Trionyx*, et sur la formation des carapaces.
Ann. Mus. d'Hist. Nat. Paris, xiv, pp. 1-20, with pls. i-v.

St. John, Orestes H. 1870 A
Descriptions of fossil fishes from the upper Coal-measures of Nebraska.
Proc. Amer. Philos. Soc., xi, pp. 431-437.

1872 A
Descriptions of fossil fishes from the upper Coal-measures of Nebraska.
Final report U. S. Geol. Surv. of Nebraska and portions of the adjacent Territories, pp. 239-245; pls. iii, iv and vi.

St. John, O. H., and Worthen, A. H. 1875 A
Descriptions of fossil fishes.
Geol. Surv. Illinois, A. H. Worthen, director, vi, pp. 245-488, with pls. i-xxii.
Contains descriptions and figures of fossil fishes of the Carboniferous and Subcarboniferous, especially of Illinois.

1883 A
Descriptions of fossil fishes. A partial revision of the Cochlodonts and Psammodonts, including notices of miscellaneous materials acquired from the Carboniferous formations of the United States.

Geol. Surv. Illinois, A. H. Worthen, director, vii, 1883, pp. 55-264, pls. i-xxvi.

St. John, Samuel. 1851 A
On a specimen of the fossil ox (*Bos bombifrons*) found in Trumbull County, Ohio.
Proc. Amer. Assoc. Adv. Sci., v, p. 235. Title only.
Specimen referred by Leidy (Leidy, 1869 A, p. 374) to *B. cavifrons*.

Salensky, W. 1899 A
Zur Entwicklungsgeschichte des Ichthyopterygiums.
Proc. 4th Internat. Congress of Zoology, Cambridge, Eng., 1898, pp. 177-183.

Salter, J. W. 1867 A
On the tracks of *Pteraspis* (?) in the Upper Ludlow sandstone.
Quart. Jour. Geol. Soc., xxiii, pp. 333-339, with figs. in the text.

Sanson, A. 1878 A
Détermination spécifique des ossements fossiles ou anciens de bovidés.
Comptes rend. Acad. Sci. Paris, lxxvii, pp. 756-759.

Saporta, Gaston de. 1877 A
Letters to Dr. F. V. Hayden.
Amer. Naturalist, xi, pp. 187-188.
Expresses gratification at the progress of palaeontology in North America.

- Sauvage, H. E.** 1870 A
Recherches sur les poissons fossiles des terrains crétacés de la Sarthe.
Ann. Sci. Géol., Paris, II, art. 7, pp. 1-44, with pls. xvi, xvii (figs. 1-80).
- 1873 A
De la classification des poissons que composent la famille des Triglides (Joues-cuirassées de Cuvier et Valenciennes).
Comptes rend. Acad. Sci. Paris, lxxvii, pp. 723-726.
- 1874 A
Revision des espèces du groupe des épinoches.
Nouv. Arch. du Mus. d'Hist. Nat. Paris, x, pp. 5-38, with pl. I.
- 1874 B
Mémoire sur les dinosauriens et les crocodiliens des terrains jurassiques de Boulogne-sur-mer.
Mém. Soc. Géol. France (2), x, pp. 1-67, with pl. v-x.
- 1875 A
Note sur les poissons fossiles.
Bull. Soc. Géol. France (3), III, pp. 631-642; pls. xxii, xxiii.
- 1875 B
Note sur le genre *Nummopalatus* et sur les espèces de ce genre trouvées dans les terrains tertiaires de la France.
Bull. Soc. Géol. France (3), III, pp. 613-642, with pls. xxii, xxiii.
- 1876 A
Notes sur les reptiles fossiles.
Bull. Soc. Géol. France (3), IV, pp. 435-442, pls. xi-xii.
Treats of *Polycotylus*, *Iguanodon*, etc.
- 1878 A
Prodrome des Plésiosaures et Élasmosaures des formations jurassiques supérieures de Boulogne-sur-mer.
Ann. Sci. Naturelles (6), Zool., VIII, art. 13, pp. 1-38, pls. xxvi, xxvii.
- 1878 B
Description de poissons nouveaux ou imparfaitement connus de la collection du Muséum d'Histoire Naturelle Famille des Scorpénidées, des Platycephalides et des Triglides.
Nouv. Arch. du Mus. d'Hist. Nat. Paris (2), I, pp. 109-156, with pls. I, II.
- 1879 A
Étude sur les poissons et les reptiles des terrains crétacés et jurassiques supérieurs de l'Yonne.
Bull. Soc. Sci. hist. et nat. de l'Yonne, xxxiii, pp. 20-34, with pls. I-viii.
- Sauvage, H. E.—Continued.** 1887 A
Note sur l'arc pectoral d'un Ichthyosaure du Lias.
Bull. Soc. Géol. France (3), xv, pp. 726-728, pl. xxviii.
- 1888 A
Poissons du terrain houiller de Commeny; I. Coup d'œil sur la faune ichthyologique du terrain carbonifère et du terrain houiller; II. La faune ichthyologique de Commeny; III. Description des espèces Famille des Palaeoniscidées.
Bull. Soc. de l'Industrie Min. (8), II livra. 4^{me}, pp. 39-120.
- Savage, J.** 1878 A
On mastodon remains in Douglas County [Kansas].
Trans. Kansas Acad. Sci., VI, pp. 10, 11.
- Scheidt, Paul.** 1894 A
Morphologie und Ontogenie des Gebisses der Hauskatze.
Morpholog. Jahrbuch, XXI, pp. 425-462, with pl. xii.
- Schenk, F.** 1897 A
Studien über die Entwicklung des knöchernen Unterkiefers der Vögel.
Sitzungsber. k. p. Akad. Wissensch. Wien, math.-naturw. Cl., cvI, Abth. III, pp. 319-344, with pls. I-v.
- Schlosser, M.** 1883 A
Über *Chalicotherium*-Arten.
Neues Jahrb. Mineral., 1883, II, pp. 164-169.
- 1884 A
Die Nager des europäischen Tertiärs nebst Betrachtungen über die Organisation und die geschichtliche Entwicklung der Nager überhaupt.
Palaeontographica, XXXI, pp. 9-162, with pls. v-xii.
Nachtrag und Berichtigungen zu "Die Nager des europäischen Tertiärs," XXXI, pp. 323-328.
- 1884 B
Nachträge und Berichtigungen zu: die Nager des europäischen Tertiärs. Palaeontographica. 31. Band.
Zoolog. Anzeiger, VII, pp. 639-647.
- 1884 C
Literaturbericht in Beziehung zur Anthropologie mit Einschluss der fossilen und recenten Säugethiere.
Archiv f. Anthrop., xvi, pp. 98-135.
- 1885 A
Zur Stammesgeschichte der Hufthiere.
Zoolog. Anzeiger, viii, pp. 683-691.

Schlosser, M.—Continued. 1886 A
Zur Stammesgeschichte der Hufthiere.
Zoolog. Anzeiger, ix, pp. 252-256, 432-433.
Pp. 432-433 are entitled: Erklärung.

1886 B
Beiträge zur Kenntnis der Stammesgeschichte der Hufthiere und Versuch einer Systematik der Paar- und Unpaarhufer.
Morpholog. Jahrbuch, xii, pp. 1-186, with pls. 1-vi.
Abstract in Archiv f. Anthrop., xviii, pp. 131-139.

1886 C
Paläontologische Notizen. Ueber das Verhältnis des Cope'schen *Creodonts* zu den übrigen Fleischfressern.
Morpholog. Jahrbuch, xii, pp. 287-298.
Abstract in Archiv f. Anthrop., xviii, pp. 130-131.

1886 D
Literaturbericht in Beziehung zur Anthropologie mit Einschluss der fossilen und recenten Säugethiere für 1884, 1885.
Archiv f. Anthrop., xvii, pp. 118-194.

1887 A
Erwiderung gegen E. D. Cope.
Morpholog. Jahrbuch, xii, pp. 575-580.
Reply to review by Professor Cope in Amer. Naturalist, 1886, pp. 719-721 (Cope, E. D., 1886 K).

1887 B
Die Affen, Lemuren, Chiropteren, Insectivoren, Marsupialier, Creodonten und Carnivoren des europäischen Tertiärs und deren Beziehungen zu ihren lebenden und fossilen aus europäischen Verwandten.
Beiträge Paläontologie Oesterreich-Ungarns und des Orients (Mojsisovics und Neumayr), vi, Heft. i und ii, pp. 1-227, with pls. 1-ix.
Abstract in Archiv f. Anthrop., xvii, pp. 279-285.

1887 C
Literaturbericht in Beziehung zur Anthropologie mit Einschluss der fossilen und recenten Säugethiere für 1886.
Archiv f. Anthrop., xviii, pp. 105-162.

1888 A
Ueber die Beziehungen der ausgestorbenen Säugetierfauna und ihr Ver-

Schlosser, M.—Continued.
hältnis zur Säugetierfauna der Gegenwart.
Biolog. Centralbl., viii, pp. 562-600, 609-631.
Abstract in Archiv f. Anthrop., xx, pp. 154-160.

1888 B
Die Affen, Lemuren, Chiropteren, Insectivoren, Marsupialier, Creodonten und Carnivoren des europäischen Tertiärs und deren Beziehungen zu ihren lebenden und fossilen ausereuropäischen Verwandten. Part II.
Beiträge Paläontologie Oesterreich-Ungarns und des Orients (Mojsisovics und Neumayr), vii, pp. 1-162.
Abstract in Archiv f. Anthrop., xvii, pp. 285-300, with pl. xii.

1889 A
Ueber die Modificationen des Extremitätenskelets bei den einzelnen Säugetierstämmen.
Biolog. Centralbl., ix, pp. 684-698, 716-729.

1889 B
Literaturbericht für Zoologie in Beziehung zur Anthropologie mit Einschluss der fossilen und recenten Säugethiere für das Jahr 1887 [and 1888].
Archiv f. Anthrop., xix, pp. 78-164.
The notices of the literature for 1887 occupies pp. 78-116; for that of 1888, pp. 117-164.

1890 A
Ueber die Deutung des Milchgebisses der Säugetiere.
Biolog. Centralbl. x, pp. 81-92.
Abstract in Archiv f. Anthrop., xxi, pp. 136-137.

1890 B
Die Affen, Lemuren, Chiropteren, Insectivoren, Marsupialier, Creodonten und Carnivoren des europäischen Tertiärs.
Beiträge Paläontologie Oesterreich-Ungarns und des Orients (Mojsisovics und Neumayr), viii, pp. 1-107, [387-492].
Abstract in Zoolog. Record for 1890, Mamm. p. 14.

Mention is made in this work of many American forms, and their relationships are discussed.

1890 C
Die Differenzierung des Säugetiergebisses.
Biolog. Centralbl. x, pp. 238-252; 264-277, with 7 figs. in the text.
Abstract in Archiv f. Anthrop., xxi, pp. 132-136.

Schlosser, M.—Continued.

1890 D

Ueber die Modificationen des Extremitätenskelets bei den einzelnen Säugethierstämmen.

Biolog. Centralbl., x, pp. 684-698; 716-729.

1890 E

Literaturbericht für Zoologie in Beziehung zur Anthropologie mit Einschluss der lebenden und fossilen Säugethiere für das Jahr 1889.

Archiv f. Anthrop., xx, pp. 113-161.

1891 A

Literaturbericht für Zoologie in Beziehung zur Anthropologie mit Einschluss der lebenden und fossilen Säugethiere für das Jahr 1890.

Archiv f. Anthrop., xxi, pp. 97-141.

1892 A

Die Entwicklung der verschiedenen Säugethierzahnformen im Laufe der geologischen Perioden.

Verhandl. deutsch. odontolog. Gesellsch., iii, pp. 208-230.

1892 B

Literaturbericht für Zoologie in Beziehung zur Anthropologie mit Einschluss der lebenden und fossilen Säugethiere für das Jahr 1891.

Archiv f. Anthrop., xxii, pp. 89-130.

1893 A

Ueber die Deutung des Milchgebisses der Säugethiere.

Verhandl. deutsch. odontolog. Gesellsch., iv, pp. 296-307, with 1 text fig.

Followed by Dr. Röse on same subject.

1893 B

Literaturbericht für Zoologie in Beziehung zur Anthropologie mit Einschluss der lebenden und fossilen Säugethiere für das Jahr 1892.

Archiv f. Anthrop., xxiii, pp. 111-160.

1894 A

Bemerkungen zu Rütimeyer's "Öocene Säugethierwelt von Egerkingen."

Zoolog. Anzeiger, xvii, pp. 157-162.

1895 A

Literaturbericht für Zoologie in Beziehung zur Anthropologie mit Einschluss der lebenden und fossilen Säugethiere für das Jahr 1893 [and 1894].

Archiv f. Anthrop., xxiv, pp. 101-182.

Pp. 101-146 are occupied with the literature of 1893; pp. 146-182 with that of 1894.

Schlosser, M.—Continued.

1897 A

Literaturbericht für Zoologie in Beziehung zur Anthropologie mit Einschluss der lebenden und fossilen Säugethiere für das Jahr 1895 [and 1896].

Archiv f. Anthrop., xxv, pp. 157-244.

Pp. 157-196 are taken up with the literature of 1895; pp. 196-244 with that for 1896.

1898 A

Literaturbericht für Zoologie in Beziehung zur Anthropologie mit Einschluss der lebenden und fossilen Säugethiere für das Jahr 1897.

Archiv f. Anthrop., xxvi, pp. 151-199.

1899 A

Parailurus anglicus and *Ursus böckii* aus den Ligniten von Baróth-Köpecz, Comitát Háromszék in Ungarn.

Mittheil. Jahrb. der kgl. ungar. geol. Anstalt, xlii, pp. 67-95, with pls. x-xlii.

1899 B

Über die Bären und bärenähnlichen Formen des europäischen Tertiärs.

Paläontographica, xlii, pp. 95-147, with pls. xlii, xlv.

1900 A

Ursus oder *Ursavus* oder *Hyenarctos*?

Centralbl. Min., Geol., Paläont., 1900, pp. 261-265; with 3 figs. in the text.

Schlüter, Clemens.

1881 A

Ueber die Fischgattung *Ancistrotodon*.

Verhandl. naturf. Vereines preuss. Rheinlande, xxxviii, pp. 61-62 with 3 figs. in the text.

Schmidt, Friedrich.

1866 A

Ueber *Thyestes verrucosus* Eichw., und *Cephalaspis schrenckii* Pand., nebst einer Einleitung über das Vorkommen silurischer Fischreste auf der Insel Oesel.

Verhandl. russ.-kais. mineralog. Gesellsch. St. Petersburg (2), i, pp. 217-250, with pls. iv-vi.

1872 A

Wissenschaftliche Resultate der zur Aufsuchung eines angekündigten Mammothcadavers von der Kaiserlichen Akademie der Wissenschaften an den unteren Jenissei ausgesandten Expedition.

Mém. Acad. Imp. Sci. St.-Petersbourg (7), xviii, pp. 1-vi; 1-168.

Pp. 28-36 are devoted to "Das Mammoth und seine Lagerstätte."

- Schmidt, Friedrich**—Cont'd. 1873 A
 Note on *Pteraspis kneri*.
 Geol. Magazine, x, pp. 152-153, with 3 figs. in the text.
-
- 1873 B
 Further remarks on *Pteraspis*.
 Geol. Magazine (1), x, pp. 330-331.
 The author claims to have found osseous lacunae in the shield of *Pteraspis*. See, also, reply by E. R. Lankester, this volume, p. 478.
-
- 1873 C
 Ueber die Pteraspiden überhaupt und über *Pteraspis kneri* aus den ober-silurischen Schichten Galiziens insbesondere.
 Verhandl. russ.-kais. mineralog. Gesellschaft. St. Petersburg (2), viii, pp. 132-152, with pl. v.
-
- 1894 A
 Ueber *Cephalaspis* (*Thyestes*) *schrencki* Pand. aus dem Obersilur von Rotzekül auf Oesel.
 Mélanges géol. et paléont. Acad. Imp. Sci. St. Pétersbourg, i, pp. 203-210, with 1 pl.
- Schmidt, Oscar.** 1886 A
 The *Mammalia* in their relation to primeval times.
 Pp. i-xxii: 1-308, with 51 woodcuts. 8vo. New York, D. Appleton and Co.
- Schneider, Anton.** 1886 A
 Ueber die Flossen der *Dipnoi* und die Systematik von *Lepidosiren* und *Protopterus*.
 Zoolog. Anzeiger, ix, pp. 521-524.
- Schuchert, Charles.** 1900 A
 [Account of visits to Alabama, for the purpose of collecting bones of the zeuglodon.]
 Proc. U. S. Nat. Mus., xxiii, pp. 328-329.
 This account is incorporated in paper by F. A. Lucas (Lucas, F. A., 1900 E).
- Schulze, Eilhard.** 1894 A
 Ueber die Abwärtsbiegung des Schwanztheiles der Wirbelsäule bei *Ichthyosaurus*.
 Sitzungsber. k. p. Akad. Wissensch. Berlin. 1894, pp. 1133-1134.
- Schwalbe, G.** 1894 A
 Ueber Theorien der Dentition.
 Verhandl. anatom. Gesellschaft., 8th meeting, 1894, pp. 5-45.
 Appended is a list of 80 papers on the subject discussed.
 Abstract of, by M. S. Schlosser in Archiv f. Anthropol., xxiv, pp. 179-180.
- Science.** 1885 A
 Professor Marsh on the *Dinocerata*.
 Science, v, pp. 488-490, with 1 map and 1 woodcut.
 A review of Marsh, O. C., 1884 F, with correction in vol. vi, p. 454.
-
- 1885 B
 The relationships between dinosaurs and birds.
 Science, vi, p. 295.
 A review of Prof. B. Vetter's article in Festschrift der naturw. Gesellsch. Isis in Dresden, May, 1885, pp. 109-122.
-
- 1885 C
 [Prof. O. C. Marsh on the brains of Tertiary vertebrates. A notice of his address before the British Association for the Advancement of Science.]
 Science, vi, p. 360.
- Scott, W. B.** 1883 A
 Two new Eocene lophiodonts.
 Contrib. E. M. Mus. Geol. and Arch.: Princeton Coll. Bull. No. 3, pp. 46-53, with pl. viii.
 Describes *Dematotherium guyotii* and *Dilophodon minusculus*.
-
- 1884 A
 A new marsupial from the Miocene of Colorado.
 Amer. Jour. Sci. (3), xxvii, pp. 442-443, with 1 fig. in the text.
-
- 1884 B
 [Communication to Princeton Science Club relative to the hind foot of the American *Entelodon*.]
 Science, iii, p. 266.
-
- 1884 C
 [Abstract of paper read before the Amer. Assoc. Adv. Sci., 1884, on the osteology of *Oreodon*.]
 Science, iii, p. 342.
-
- 1885 A
 A fossil elk or moose from the Quaternary of New Jersey (*Cervalces americanus*).
 Science, v, pp. 420-422, with two woodcuts.
 Notice of this paper in Amer. Naturalist, xix, p. 495.
-
- 1885 B
 The osteology of *Oreodon*.
 Proc. Amer. Assoc. Adv. Sci., 33d meeting, Phila., 1884, pp. 492-493.
 An abstract of paper read.
-
- 1885 C
Cervalces americanus, a fossil moose or elk from the Quaternary of New Jersey.
 Proc. Acad. Nat. Sci. Phila., 1885, pp. 174-202, with pl. ii and 7 figs. in the text.

- Scott, W. B.—Continued.** 1885 D
Cervalces americanus.
 Fourth annual report E. M. Mus. Geol. and Arch., Princeton Coll., pp. 4-6, with pl.
- 1886 A
 On some new forms of the *Dinocerata*.
 Amer. Jour. Sci. (3), xxxi, pp. 303-307, with 4 figs. in the text.
- 1886 B
 Some points in the evolution of the horses.
 Science, vii, p. 13, with 2 woodcuts.
- 1887 A
 On American elephant myths.
 Scribner's Magazine, i, pp. 469-478, with 10 text figs.
- 1888 A
 Origin of American *Carnivora*.
 Proc. Amer. Assoc. Adv. Sci., 36th meeting, New York, 1887, pp. 258-269.
 Abstract of paper read.
- 1888 B
 On some new and little-known creodonts.
 Jour. Acad. Nat. Sci. Phila. (2), ix, pp. 156-185, pls. v-vii.
 Extra copies printed in advance for the author Oct. 10, 1887.
 Reviewed by M. Schlosser in Archiv f. Anthropol., xviii, pp. 139-140.
- 1889 A
 A comparison of the American and European Tertiary *Mammalia*.
 Princeton Coll. Bull., i, pp. 20-21.
- 1889 B
 Notes on the osteology and systematic position of *Dinictis felina*, Leidy.
 Proc. Acad. Nat. Sci. Phila., 1889, pp. 211-244, with 7 figs. in the text.
 Abstract in Princeton Coll. Bull., i, p. 118, 1889.
- 1889 C
 The *Oreodontidae*.
 Princeton Coll. Bull., i, pp. 75-77.
- 1890 A
 The *Mammalia* of the Uinta formation. Part I. The geological and faunal relations of the Uinta formation. Part II. The *Creodonta*, *Rodentia*, and *Artiodactyla*.
 Trans. Amer. Philos. Soc., xvi, pp. 461-504, with pls. vii, x, and xi.
 This forms a portion of a joint paper by Professors Scott and Osborn. See Osborn, H. F. 1890 D, and Scott and Osborn, 1890 A.
 Notice of, occurs in Princeton Coll. Bull., ii, p. 46.
- Scott, W. B.—Continued.** 1890 B
 Beiträge zur Kenntniss der *Oreodontidae*.
 Morpholog. Jahrbuch, xvi, pp. 319-396, with pls. xii-xvi and 10 figs. in the text.
 For review of this paper, by R. Lydekker, see the Geol. Magazine (3), vii, p. 568; by M. Schlosser, Archiv f. Anthropol., xxi, pp. 137-139.
- 1890 C
 The dogs of the American Miocene.
 Princeton Coll. Bull., ii, pp. 37-39.
- 1891 A
 On the osteology of *Poebrotherium*; a contribution to the phylogeny of the *Tylopoda*.
 Jour. Morphology, v, pp. 1-78, pls. i-iii.
 An abstract is given by M. Schlosser in Archiv f. Anthropol., xxii, 1894, pp. 118-120.
- 1891 B
 On the osteology of *Mesohippus* and *Leptomeryx*, with observations on the modes and factors of evolution in the *Mammalia*.
 Jour. Morphology, v, pp. 301-406, with pls. xxii, xxiii.
 Review in Amer. Geologist, ix, pp. 402-404; also by Schlosser in Archiv f. Anthropol., xxii, 1894, pp. 120-122.
- 1891 C
 On the mode of evolution in the *Mammalia*.
 Princeton Coll. Bull., iii, pp. 62-68.
- 1891 D
 The Princeton scientific expedition of 1891.
 Princeton Coll. Bull., iii, pp. 88-91.
- 1892 A
 The evolution of the premolar teeth in the mammals.
 Proc. Acad. Nat. Sci. Phila., 1892, pp. 405-444, with 8 figs. in the text.
 See for abstract, Princeton Coll. Bull., iv, pp. 74-76; for review by M. Schlosser, Archiv f. Anthropol., xxiii, p. 155.
- 1892 B
 A revision of the North American *Creodonta*, with notes on some genera which have been referred to that group.
 Proc. Acad. Nat. Sci. Phila., 1892, pp. 291-323.
 Reviewed by M. Schlosser in Archiv f. Anthropol., xxiii, pp. 141-142.
- 1892 C
 On some of the factors in the evolution of the *Mammalia*.
 Princeton Coll. Bull., iv, pp. 11-17.

- Scott, W. B.—Continued.** 1892 D
The genera of American *Creodonta*.
Princeton Coll. Bull., iv, pp. 76-81.
-
- 1893 A
On a new musteline from the John Day Miocene.
Amer. Naturalist, xxvii, pp. 658-659.
Description of *Parictis primævus*.
-
- 1893 B
The mammals of the Deep River beds.
Amer. Naturalist, xxvii, pp. 659-662.
List of species and description of new species.
-
- 1893 C
The Princeton scientific expedition of 1893.
Princeton Coll. Bull., v, pp. 80-84.
-
- 1894 A
A new insectivore from the White River beds.
Proc. Acad. Nat. Sci. Phila., 1894, pp. 446-448.
-
- 1894 B
Notes on the osteology of *Agriochærus* Leidy (*Artionyx* O. and W.).
Proc. Amer. Philos. Soc., xxxiii, pp. 243-251, with 3 text figs.
Notice of this paper in Amer. Naturalist, xxviii, p. 952, and xxix, p. 368; also in Archiv f. Anthrop., xxiv, p. 170. Abstract in Princeton Coll. Bull., vi, pp. 98-100, 1894.
-
- 1894 C
The manus of a *Hyopotamus*.
Amer. Naturalist, xxviii, pp. 164-166.
-
- 1894 D
Notes on the osteology of *Ancodus* (*Hyopotamus*).
Geol. Magazine (4), i, pp. 492-493.
-
- 1894 E
The structure and relationships of *Ancodus*.
Jour. Acad. Nat. Sci. Phila., ix, pp. 461-497, pls. xxiii, xxiv, with text fig. showing restoration of the skeleton.
Appendix, p. 536, describing the new species *A. rostratus*.
Review by M. Schlosser in Archiv f. Anthrop., xxv, pp. 219-221.
-
- 1894 F
The osteology of *Hyænodon*.
Jour. Acad. Nat. Sci. Phila., ix, pp. 499-535, with 10 figs. in the text.
Review by M. Schlosser in Archiv f. Anthrop., xxv, pp. 218-219.
-
- 1895 A
The osteology and relations of *Protoceras*.
Jour. Morphology, xi, pp. 308-374, pls. xx-xxii.
Reviewed by M. Schlosser in Archiv f. Anthrop., xxv, pp. 217-218.

- Scott, W. B.—Continued.** 1895 B
A restoration of *Hyænodon*.
Geol. Magazine (4), ii, pp. 441-443, pl. xii A.
-
- 1895 C
The *Mammalia* of the Deep River beds.
Trans. Amer. Philos. Soc., xviii, pp. 55-185, with pls. i-vi.
Abstract in Princeton Coll. Bull., vi, pp. 76-78, 1894. Noticed by M. Schlosser in Archiv f. Anthrop., xxiv, pp. 168-170.
This memoir, or reprints of it, appears to have been issued some time in the year 1894. The imprint "1895" is on the cover of the part containing it.
-
- 1895 D
A new Geomyid from the Upper Eocene.
Amer. Naturalist, xxix, pp. 923-924.
Abstract of paper in the Proc. Nat. Sci., Phila. Acad., 1895, describing *Protoptychus hatcheri*; reviewed by M. Schlosser in Archiv f. Anthrop., xxv, p. 182.
-
- 1895 E
Protoptychus hatcheri, a new rodent from the Uinta Eocene.
Proc. Acad. Nat. Sci. Phila., 1895, pp. 269-286, with 6 figs. in the text.
-
- 1895 F
On the *Creodonta*.
Report Brit. Assoc. Adv. Sci., 1895, lxxv., pp. 719-720.
-
- 1896 A
On the osteology of *Elotherium*, Pomel.
Compte-rendu des séances du troisième Congrès Internat. de Zoologie, Leyden, 1895, pp. 317-319.
-
- 1896 B
Die Osteologie von *Hyracodon*, Leidy.
Festschrift zum 70sten Geburtstage von Carl Gegenbaur, ii, pp. 358-384, with pls. i-iii.
-
- 1897 A
Preliminary notes on the White River *Canidae*.
Princeton Univ. Bull., ix, pp. 1-3.
-
- 1897 B
The osteology of *Hyracodon*.
Princeton Univ. Bull., ix, pp. 11-13.
-
- 1898 A
The osteology of *Elotherium*.
Trans. Amer. Philos. Soc., xix, pp. 273-324, with pls. xvii, xviii.
-
- 1898 B
Notes on the *Canidae* of the White River Oligocene.
Trans. Amer. Philos. Soc., xix, pp. 327-415, with pls. xix, xx.

- Scott, W. B.—Continued.** 1898 C
Preliminary note on the selenodont artiodactyls of the Uinta formation.
Proc. Amer. Philos. Soc., xxxvii, pp. 73-81.
- 1898 D
Memoir of Edward D. Cope.
Pull. Geol. Soc. America, ix, pp. 401-408.
- 1899 A
The selenodont artiodactyls of the Uinta Eocene.
Trans. Wagner Free Inst. Sci., Phila., vi, pp. ix-xlii; 1-121, with pls. 1-1v.
Note on, by H. F. Osborn in Science (2), xi, 1900 p. 115.
- Scott, W. B., and Osborn, H. F.** 1882 A
Orthocynodon, an animal related to the rhinoceros, from the Bridger Eocene.
Amer. Jour. Sci. (3), xxiv, pp. 223-225.
Reprinted in Ann. and Mag. Nat. Hist. (5), v, 1882, pp. 332-334.
- 1883 A
On the skull of the Eocene rhinoceros, *Orthocynodon*, and the relation of this genus to other members of the group.
Contrib. E. M. Mus. Geol. and Arch.; Princeton Coll., Bull. No. 3, pp. 1-22, with pl. v, and 1 fig. in the text.
- 1884 A
On the origin and development of the rhinoceros group.
Report Brit. Assoc. Adv. Sci., 53d meeting, Southampton, 1883, p. 528.
A brief abstract.
- 1887 A
Preliminary report on the vertebrate fossils of the Uinta formation, collected by the Princeton expedition of 1886.
Proc. Amer. Philos. Soc., xxiv, pp. 265-264.
Reviewed by M. Schlosser in Archiv f. Anthrop., xix, p. 97.
- 1897 B
Preliminary account of the fossil mammals from the White River formation, contained in the Museum of Comparative Zoology.
Bull. Mus. Comp. Zool., xiii, pp. 151-171, with pls. 1-11, and 9 figs. in the text.
Reviewed by M. Schlosser in Archiv f. Anthrop., xix, pp. 91-98.
- 1890 A
The *Mammalia* of the Uinta formation. Part I. The geological and faunal relations of the Uinta formation. Part II. The *Creodonts*, by W. B. Scott. Part III. The *Perissodactyla* by H. F. Osborn, W. B., and Osborn, H. F.—Cont'd.
born. Part IV. The evolution of the ungulate foot, by H. F. Osborn.
Trans. Amer. Philos. Soc., xvi, pp. 461-572; pls. vii-xi; text figs. 1-13.
Referred to under designations Scott, W. B., 1890 A and Osborn, H. F., 1890 D.
Author's reprints of this paper were issued Aug. 20, 1889. The imprint of Part III of the Transactions gives the date as 1890.
Reviewed by M. Schlosser in Archiv f. Anthrop., xx, pp. 128-134.
- 1890 B
Preliminary account of the fossil mammals from the White River and Loup Fork formations contained in the Museum of Comparative Zoology. Part II. *Carnivora* and *Artiodactyla*, by W. B. Scott. *Perissodactyla*, by Henry F. Osborn.
Bull. Mus. Comp. Zool., xx, pp. 65-100, with pls. i-iii and 18 figs. in the text.
Abstract in Zoolog. Record for 1890, Mamm., p. 15. Reviewed by M. Schlosser in Archiv f. Anthrop., xx, pp. 114-116.
See also Osborn, Scott, and Speir.
- Seeborn, Henry.** 1889 A
An attempt to diagnose the suborders of the ancient ardeino-anserine assemblage of birds by the aid of osteological characters alone.
The Ibis (6), i, pp. 92-104.
- Seeley, Harry G.** 1865 A
On the pterodactyle as evidence of a new subclass of *Vertebrata* (*Saurornia*).
Report Brit. Assoc. Adv. Sci., 34th meeting, Bath, 1864, p. 69.
- 1866 A
An epitome of the evidence that pterodactyles are not reptiles, but a new subclass of vertebrate animals allied to birds (*Saurornia*).
Ann. and Mag. Nat. Hist. (3), xvii, pp. 321-331.
- 1870 A
Remarks on Professor Owen's monograph on *Dimorphodon*.
Ann. and Mag. Nat. Hist. (4), vi, pp. 129-152, with several text figs.
- 1870 B
The *Ornithosauria*, an elementary study of the bones of pterodactyles, made from fossil remains found in the Cambridge upper Greensand, and arranged in the Woodwardian Museum of the University of Cambridge.
Cambridge, 1870, 8 vo., pp. 1-xiii; 1-135, with pls. i-xii.
The appendix, pp. 129-132, is devoted to the bibliography of the subject.

Seeley, Harry G.—Continued. 1871 A
Note on Professor Cope's interpretation of the ichthyosaurian head.
Ann. and Mag. Nat. Hist. (4), vii, pp. 266-268: 389.

This note refers to paper by E. D. Cope. In Amer. Naturalist, October, 1870.

1871 B
Note on some chelonian remains from the London Clay.

Ann. and Mag. Nat. Hist. (4), vii, pp. 227-233, with 1 fig. in the text.

Describes the new genus *Glossoschelys*.

1871 C
Additional evidence of the structure of the head in ornithosaurs from the Cambridge upper Greensand; being a supplement to "The Ornithosauria."

Ann. and Mag. Nat. Hist. (4), vii, pp. 20-36, with pls. ii, iii.

1874 A
Note on the generic modifications of the plesiosaurian pectoral arch.

Quart. Jour. Geol. Soc., xxx, pp. 436-449, with 13 text figs.

1876 A
On the organization of the *Ornithosauria*.

Jour. Linn. Soc. Lond., xiii, pp. 84-107, with pl. xi.

Review of this paper by "W. D." in Geol. Magazine (2), iv, 1877, p. 124.

1876 B
On the British fossil Cretaceous birds.
Quart. Jour. Geol. Soc., xxxii, pp. 496-512, with pls. xxvi-xxvii.

1879 A
On the *Dinosauria*.
Proc. Geologists' Assoc., vi, pp. 175-185.

1880 A
Report on the mode of reproduction of certain species of *Ichthyosaurus* from the Lias of England and Würtemberg.

Report Brit. Assoc. Adv. Sci., 50th meeting, Swansea, 1880, pp. 68-76, with pl. i.

1880 B
Note on *Psephophorus polygonus*, Meyer, a new type of chelonian reptile allied to the leathery turtle.

Quart. Jour. Geol. Soc., xxxvi, pp. 406-413, with pl. xv.

1887 A
On *Aristosuchus pusillus* (Owen), being further notes on the fossils described by Sir R. Owen as *Poikilopleuron pusillus*.

Quart. Jour. Geol. Soc., xliii, pp. 221-228, with pl. xii.

Seeley, Harry G.—Continued. 1887 B
Mr. Dollo's notes on the dinosaurian fauna of Bernissart.

Geol. Magazine (3), iv, pp. 80-87, 124-130.

1887 C
On the mode of development of the young in *Plesiosaurus*.

Geol. Magazine (3), iv, pp. 562-563.

1888 A
On the mode of development of the young in *Plesiosaurus*.

Report Brit. Assoc. Adv. Sci., 57th meeting, Manchester, 1887, pp. 697-698.

1888 B
The classification of the *Dinosauria*.
Report Brit. Assoc. Adv. Sci., 57th meeting, Manchester, 1887, pp. 698-699.

1888 C
On *Thecospondylus danieli* (Seeley), with some remarks on the classification of the *Dinosauria*.

Quart. Jour. Geol. Soc., xlii, pp. 79-87, with 5 text figs.

1888 D
Researches on the structure, organization, and classification of the fossil *Reptilia*. II. On *Parciasaurus bombidens* (Owen), and the significance of its affinities to amphibians, reptiles, and mammals.

Philos. Trans. Roy. Soc. Lond., clxxix, pp. 59-155, with pls. xii-xxi and 14 figs. in the text.

1888 E
Researches on the structure, organization, and classification of the fossil *Reptilia*. III. On parts of the skeleton of a mammal from the Triassic rocks of Klipfontein, Fraserberg, South Africa, (*Theriodonemus phylarchus* Seeley), illustrating the reptilian inheritance in the mammalian hand.

Philos. Trans. Roy. Soc., clxxix, pp. 141-155, with pl. xxvi and 15 figs. in the text.

Reviewed by M. Schlosser in Archiv f. Anthrop., xix, pp. 145-146.

1888 F
Researches on the structure, organization, and classification of the fossil *Reptilia*. V. On associated bones of a small Anomodont reptile, *Keirognathus cordylus* (Seeley), showing the relative dimensions of the anterior parts of the skeleton and structure of the fore limb and shoulder girdle.

Philos. Trans. Roy. Soc. Lond., clxxix, B, p. 487-501, with pls. lxxv-lxxvi.

Seeley, Harry G.—Continued. 1888 G

On the classification of the fossil animals commonly named *Dinosauria*.

Proc. Roy. Soc. Lond., xliii, pp. 165-171, with 4 figs.

1888 H

On the nature and limits of reptilian character in mammalian teeth.

Proc. Roy. Soc. Lond., xlii, pp. 129-141, with 8 text figs.

Reviewed by M. Schlosser in Archiv f. Anthropol., xix, p. 160.

1889 A

Researches on the structure, organization, and classification of the fossil *Reptilia*. VI. On the Anomodont *Reptilia* and their allies.

Philos. Trans. Roy. Soc., Lond., clxxx, pp. 215-296, with pls. 9-25.

1891 A

The ornithosaurian pelvis.

Ann. and Mag. Nat. Hist. (6), vii, pp. 237-256, with 16 figs. in the text.

1891 B

On the shoulder girdle in Cretaceous *Ornithosauria*.

Ann. and Mag. Nat. Hist. (6), vii, pp. 438-445, with 2 figs. in the text.

1892 A

Researches on the structure, organization, and classification of the fossil *Reptilia*. VII. Further observations on *Pareiasaurus*.

Philos. Trans. Roy. Soc., clxxxiii, pp. 311-370, with pls. xvii-xliii and 17 figs. in the text

1892 B

The nature of the shoulder girdle and clavicular arch in *Sauropterygia*.

Proc. Roy. Soc. Lond., li, pp. 119-151, with 15 figs. in the text.

1893 A

On a reptilian tooth with two roots.

Ann. and Mag. Nat. Hist. (6), xli, pp. 227-230, with 1 text fig.

Refers to Marsh's account of the teeth of *Triceratops* and describes and figures the two-rooted tooth of *Nuthetes*.

1894 A

On *Euskelesaurus brownii* (Huxley).

Ann. and Mag. Nat. Hist. (6), xiv, pp. 317-340, with 7 figs. in the text.

1895 A

Researches on the structure, organization, and classification of the fossil *Reptilia*. Part IX, section 1. On the *Therosuchia*.

Philos. Trans. Roy. Soc. Lond., clxxxv, pt. B, pp. 967-1018, with pl. lxxxviii.

Seeley, Harry G.—Continued. 1895 B

Researches on the structure, organization, and classification of the fossil *Reptilia*. Part IX, section 5. On the skeleton in new *Cynodontia*, from the Karroo rocks.

Philos. Trans. Roy. Soc. Lond., clxxxvi, pp. 59-148, with 33 figs. in text.

1895 C

On *Thecodontosaurus* and *Palaeosaurus*.

Ann. and Mag. Nat. Hist. (6), xv, pp. 144-163, with 10 figs. in the text.

1896 A

On a pyritous concretion from the Lias of Whitby, which appears to show the external form of the body of embryos of a species of *Plesiosaurus*.

Annual Report Yorkshire Philos. Soc. for 1895.

1898 A

Origin of *Mammalia*.

Science (2), viii, pp. 357-358.

Abstract of remarks made at International Congress of Zoologists at Cambridge, England, 4th meeting; proceedings, pp. 68-71.

1900 A

On an Anomodont reptile, *Aristodemus rütimeyeri* (Wiedersheim), from the Bunter sandstone, near Basel.

Quart. Jour. Geol. Soc., lvi, pp. 620-645, with 8 figs. in the text.

Segond, L. A.

1864 A

Comparaison morphologique des vertèbres du bassin et du sternum chez les oiseaux.

Jour. de l'Anat., Physiol., etc., i, pp. 602-623.

1865 A

Comparaison morphologique des vertèbres du bassin et du sternum chez les oiseaux.

Jour. de l'Anat., Physiol., etc., ii, pp. 36-56.

1873 A

Reptiles et batraciens classés d'après leurs affinités par rapport à cinq types dont les caractères sont empruntés aux parties les moins modifiables du squelette.

Jour. de l'Anat., Physiol., etc., ix, pp. 1-29.

1873 B

Des affinités squelettiques des poissons.

Jour. de l'Anat., Physiol., etc., ix, pp. 511-534; 607-627.

Selenka, Emil.

1869 A

Aves. Anatomischer Bau.

Bronn's Klassen und Ordnungen des Thier. Reichs, vi, pp. 1-90, pls.

This article deals with the osteology of birds.

- Selwyn, Alfred R. C.** 1872 A
On the discovery of reptilian footprints in Nova Scotia.
Geol. Magazine (1), ix, pp. 250-251.
- Semon, Richard.** 1899 A
Ueber die Entwicklung der Zahngebilde der Dipnoer.
Sitzungsber. Gesellsch. Morphol. u. Physiol. München, xv, pp. 75-85, with 4 text figs.
- Serres, M.** 1865 A
Deuxième note sur le squelette du *Glyptodon clavipes*.
Comptes rend. Acad. Sci. Paris, lxi, pp. 457-466.
- 1865 B.
Notes sur le *Glyptodon ornatus*. De sa carapace et de ses rapports normaux avec le squelette; caractères différentiels des os du bassin avec ceux du *Glyptodon clavipes*.
Comptes rend. Acad. Sci. Paris, lxi, pp. 537-544; 665-670.
Translation in *Ann. and Mag. Nat. Hist.* (3), xvi, pp. 432-443.
- Shaler, N. S.** 1871 A
The time of the mammoths.
Amer. Naturalist, iv, pp. 148-166.
- 1871 B
Note on the occurrence of the remains of *Tarandus rangifer*, Gray, at Big Bone Lick, Kentucky.
Proc. Boston Soc. Nat. Hist., xliii, p. 167.
- 1876 A
On the age of the bison in the Ohio Valley.
Mem. Kentucky Geol. Surv., i, pp. 232-236, with 1 diagrammatic section.
This paper forms Appendix II to J. A. Allen's memoir, *The American Bisons*, and was reprinted in *Mem. Mus. Comp. Zool.*, iv, pp. 232-236.
- Shepard, Charles Upham.** 1867 A
On the supposed tadpole nests, or imprints made by *Batrachoides nidiicans* (Hitchcock), in the red shale of the New Red sandstone of South Hadley, Mass.
Amer. Jour. Sci. (2), xliiii, pp. 99-104.
- Sherborn, C. D.**
See Woodward, A. S., and Sherborn, C. D.
- Shufeldt, R. W.** 1881 A
On the ossicle of the antibrachium as found in some North American *Falconidae*.
Bull. Nuttall Ornithological Club, vi, pp. 197-203.
- Shufeldt, R. W.—Continued.** 1881 B
Osteology of the North American Tetraonidae.
Bull. U. S. Geol. and Geog. Surv., F. V. Hayden, vi, pp. 309-350, with pls. vii-xiv.
Also, with little change in *Ann. Rep. U. S. Geol. and Geog. Surv. for 1878* (1883), pp. 668-700, with pls. v-xiii, and 16 figs. in the text.
- 1881 C
*Osteology of *Lanius ludovicianus excubitorides**.
Bull. U. S. Geol. and Geog. Surv., F. V. Hayden, vi, pp. 351-359, with pl. xiv.
Also, in *Ann. Rep. U. S. Geol. and Geog. Surv. for 1878* (1883), pp. 719-725, with pl. xiv.
- 1881 D
*Osteology of *Speotyto cunicularia*, var. *hypogaea**.
Bull. U. S. Geol. and Geog. Surv., F. V. Hayden, vi, pp. 87-117, with pls. i-iii.
Also, with little change, in *Annual Report U. S. Geol. and Geog. Surv. for 1878* (1883), pt. i, pp. 593-620, with pls. i-iii.
- 1881 E
*Osteology of *Eremophila alpestris**.
Bull. U. S. Geol. and Geog. Surv., F. V. Hayden, vi, pp. 119-147, with pl. iii-iv.
Also in *Annual Report U. S. Geol. and Geog. Surv. for 1878* (1883), pp. 627-650, with pl. iv.
- 1883 A
*Observations upon the osteology of *Podasocys montanus**.
Jour. Anat. and Physiol., xviii, pp. 86-102, with pl. v.
- 1883 B
*Remarks on the osteology of *Phalacrocorax bicristatus**.
Science, ii, pp. 640-642, with 3 figs.
For discussion of this paper see Jeffries, J. A., *Science*, ii, p. 739, and iii, p. 50.
- 1883 C
*Osteology of the *Cathartidae**.
Twelfth Annual Report U. S. Geol. and Geog. Surv., F. V. Hayden, 1878 (1883), Pt. i, pp. 728-786, with pls. xv-xxiv, and many figs. in the text.
- 1884 A
*Osteology of *Numenius longirostris*, with notes upon the skeleton of other American *Limicolæ**.
Jour. Anat. and Physiol., xix, pp. 51-82, with pls. iv and v.
- 1885 A
Contribution to the comparative osteology of the *Trochilidae*, *Caprimulgidae*, and *Cypselidae*.
Proc. Zool. Soc. Lond., 1885, pp. 886-916, with pls. lviii-lxi and 6 woodcuts in the text.

Shufeldt, R. W.—Continued. 1885 B
The osteology of *Amia calva*, including certain special references to the skeleton of Teleosteans.

Report U. S. Commissioner of Fish and Fisheries, 1883, pp. 747-878, pls. 1-xiv.

Part I consists of a translation of Sagemehl's paper on *Amia*. Part II describes osteology of *Amia*, and portions of that of *Micropterus* and *Albula*.

1886 A

Additional notes upon the anatomy of the *Trochilidae*, *Caprimulgidae*, and *Cypselidae*.

Proc. Zool. Soc. Lond., 1886, pp. 501-503, with 6 figs. in the text.

1886 B

Contributions to the anatomy of *Geococcyx californianus*.

Proc. Zool. Soc. Lond., 1886, pp. 466-491, with pls. xlii-xlv.

1886 C

Osteology of *Comurus carolinensis*.

Jour. Anat. and Physiol., xx, pp. 407-425, with pls. x and xi.

1888 A

Contributions to the comparative osteology of arctic and subarctic water birds.

Jour. Anat. and Physiol., xxiii, pp. 1-39, pls. i-v.

1888 B

Osteology of *Porzana carolina* (the Carolina rail).

Jour. Compar. Med. and Surg., ix, pp. 231-248, with 7 figs. in the text.

1888 C

Observations upon the morphology of *Gallus bankiva* of India.

Jour. Compar. Med. and Surg., ix, pp. 343-376, with 30 figs. in the text.

1888 D

On the skeleton in the genus *Sturnella*, with osteological notes upon other North American *Icteridae* and the *Corvidae*.

Jour. Anat. and Physiol., xxii, pp. 309-350, with pls. xiv, xv.

1888 E

Observations upon the osteology of the order *Tubinares* and *Seganopodes*.

Proc. U. S. Nat. Mus., xi, pp. 253-315, with 43 figs. in the text.

1889 A

Observations upon the osteology of the North American *Anseres*.

Proc. U. S. Nat. Mus., xi, pp. 216-251, with 20 figs. in the text.

Shufeldt, R. W.—Continued. 1889 B

On the comparative osteology of arctic and subarctic water birds.

Jour. Anat. and Physiol., xxiii, pp. 165-186, pls. vii-xi; 400-427, text figs. 17; 537-558, text figs. 1-8.

This paper is a continuation of Shufeldt, 1888 A.

1889 C

Contributions to the comparative osteology of arctic and subarctic water birds.

Jour. Anat. and Physiol., xxiv, pp. 89-117, pls. vi-viii, and 13 figs. in the text.

A continuation of Shufeldt, 1889 B. Treats of *Fraterculinae*, *Fratercola*, *Lunda*, *Uria*, and the *Alcidae*.

1890 A

Contributions to the comparative osteology of arctic and subarctic water birds.

Jour. Anat. and Physiol., xxiv, pp. 169-187, pls. xi, xli, and 2 text figs.; 543-566, with 17 text figs.

1890 B

Contributions to the comparative osteology of arctic and subarctic water birds.

Jour. Anat. and Physiol., xxv, pp. 60-77.

A continuation of Shufeldt, 1890 A.

1890 C

On the affinities of *Hesperornis*.

Nature, xliii, p. 176.

1891 A

On a collection of fossil birds from the Equus beds of Oregon.

Amer. Naturalist, xxv, pp. 359-362.

A general account of Silver Lake, Oregon, and of fossil remains there found.

1891 B

Fossil birds from the Equus beds of Oregon.

Amer. Naturalist, xxv, pp. 818-821.

See also The Auk, 1891, viii, pp. 366-368.

A list of 51 species, with remarks on some of the most interesting.

1891 C

Contributions to the comparative osteology of arctic and subarctic water birds.

Jour. Anat. and Physiol., xxv, pp. 509-525, pls. xi and xli, with 4 figs. in the text.

Continuation and conclusion of Shufeldt, 1890 B.

1892 A

A study of the fossil avifauna of the Silver Lake region, Oregon.

Proc. Amer. Assoc. Adv. Sci. 40th meeting Washington, 1891, p. 286. Abstract.

- Shufeldt, R. W.**—Continued. 1892 B
Creccoides osbornii.
 In Cope's report on palaeontology of Texas,
 8d Annual Report Geol. Surv. Texas, for 1891.
 Austin, 1892, pp. 253-255.
- 1892 C
 Concerning the taxonomy of the
 North American *Pygopodes*, based upon
 their osteology.
 Jour. Anat. and Physiol., xxvi, pp. 199-203.
- 1892 D
 A study of the avifauna of the Equus
 beds of the Oregon Desert.
 Jour. Acad. Nat. Sci., Phila., ix, pp. 389-425,
 pls. xv-xvii.
- 1893 A
 Comparative osteological notes on the
 extinct bird *Ichthyornis*.
 Jour. Anat. and Physiol., xxvii, pp. 336-342.
- 1894 A
 Osteology of certain cranes, rails, and
 their allies, with remarks upon their
 affinities.
 Jour. Anat. and Physiol., xxix, pp. 21-34,
 with 3 figs.
- 1894 B
 On cases of complete fibulae in exist-
 ing birds.
 The Ibis (6), vi, pp. 361-366, with 2 figs. in
 the text.
- 1894 C
 Notes on the *Steganopodes* and on
 fossil birds' eggs.
 The Auk, xi, pp. 337-339.
- 1894 D
 On the affinities of the *Steganopodes*.
 Proc. Zool. Soc. Lond., 1894, pp. 160-162.
- 1897 A
 On fossil bird bones obtained by ex-
 peditions of the University of Pennsyl-
 vania from the bone caves of Tennessee.
 Amer. Naturalist, xxxi, pp. 645-650.
 All are of existing species and yet living in
 that region.
- 1897 B
 On the feathers of "*Hesperornis*."
 Nature, lvi, p. 30.
- 1899 A
 Observations on the classification of
 birds.
 Ann. and Mag. Nat. Hist. (7), iv, pp. 101-111,
 with 2 figs. in the text.
- 1900 A
 The osteology of *Vulpes macrotis*.
 Jour. Acad. Nat. Sci. Phila. (2), xi, pp. 396-418,
 with pls. xxii, xxiii.
- Shurtleff, N. B.** 1846 A
 Remarks on the skeleton of *Masto-
 don giganteus* found in Newburg, Orange
 County, N. Y.
 Proc. Boston Soc. Nat. Hist., ii, pp. 96-98.
- Sickler, F. K. L.** 1835 A
 Fährten unbekannten Thiere im
 Sandsteine bei Hildburghausen.
 Neues Jahrb. Mineral., etc., 1835, pp. 230-232.
 This is followed by remarks on the fossil
 tracks by H. G. Bronn.
- Siebenrock, Friedrich.** 1892 A
 Zur Kenntniss des Kopfskelettes der
 Scincoiden, Anguiden, und Gerrhosaur-
 iden.
 Annalen k. k. naturh. Hofmuseums Wien,
 vii, pp. 163-196, with pls. xi, xlii.
- 1893 A
 Das Skelet von *Uroplatus fimbriatus*
 Schneider.
 Annalen k. k. naturh. Hofmuseums Wien,
 viii, pp. 517-536, with pl. xiv and 2 figs. in the
 text.
- 1893 B
 Das Skelet von *Brookesia superciliaris*
 Kuhl.
 Sitzungsber. k. p. Akad. Wissensch. Wien,
 math.-naturw. Cl., cii, pp. 1-48, with pls. 1-iv.
- 1894 A
 Das Skelet der *Lacerta simonyi*, und
 der Lacertidenfamilie überhaupt.
 Sitzungsber. k. p. Akad. Wissensch. Wien,
 math. naturw. Cl., ciii, pp. 205-292, pls. 1-iv.
- 1894 B
 A contribution to the osteology of
 the head of *Hatteria*.
 Ann. and Mag. Nat. Hist. (6), xlii, pp. 297-
 311, with pl. xiv.
 Translated from Sitzungsber. k. p. Akad.
 Wissensch. Wien, math. naturw. Cl., cii, Abth.
 i, 1893, pp. 250-268, pl. i.
- 1895 A
 Zu Kenntniss des Rumpfskeletes der
 Scincoiden, Anguiden und Gerrhos-
 sauriden.
 Annalen k. k. naturh. Hofmuseums Wien,
 x, pp. 18-41, with pl. iii and 4 figs. in the text.
 Appended is a list of 59 books and papers
 bearing on the osteology of the *Lacertilia*.
- 1895 B
 Das Skelet der *Agamidae*.
 Sitzungsber. k. p. Akad. Wissensch. Wien,
 math.-naturw. Cl., Abth. i, civ, pp. 1-108, with
 pls. i-vi.
 This work includes a list of 67 papers on the
 subject treated.

- Siebenrock, Friedrich**—Cont'd. 1897 A
Das Kopfskelet der Schildkröten.
Sitzungsber. k. p. Akad. Wissensch. Wien.,
math.-naturw. Cl., cvi, pp. 1-84, with pls. i-vi.
This paper includes a list of 61 works on the
subject.
- 1898 A
Ueber den Bau und die Entwicklung
des Zungenbein-Apparates der Schild-
kröten.
Annalen k. k. naturh. Hofmuseums Wien,
xiii, pp. 424-436, with pls. xvii, xviii and 2 figs.
in the text.
Appended is a list of 22 works bearing on
the subject.
- Silliman, Benj., Sr.** 1835 A
Vertebral bone of a mastodon.
Amer. Jour. Sci., xxvii, p. 165.
- 1837 A
Bird tracks at Middletown, Conn.,
in the New Red sandstone.
Amer. Jour. Sci., xxxi, p. 165.
This is an extract from a letter to the editor
from an unnamed correspondent. No species
or genera are named.
- Silliman, Benj., Jr.** 1868 A
On the existence of the mastodon in
the deep-lying gold placers of Cali-
fornia.
Amer. Jour. Sci. (2), xlv, pp. 378-381.
- Sirodot, S.** 1876 A
Les éléphants du mont Dol; essai
d'organogénie du système des dents
mâchelières du mammouth.
Comptes rend. Acad. Sci., Paris, lxxxii, pp.
734-736, 822-824, 902-906.
- 1876 B
Les éléphants du mont Dol. Denti-
tion du mammouth, distinction des
molaires inférieure, et supérieurs droits
et gauches.
Comptes rend. Acad. Sci., Paris, lxxxii, pp.
1065-1068.
- Sismonda, Eugenio.** 1849 A
Descrizione dei pesci e dei crostacei
fossili nel Piemonte.
Mem. della Reale Accad. delle Scienze di
Torino (2), x, pp. 1-88, with pls. i-iii.
- Sixta, V.** 1900 A
Vergleichend - osteologische Unter-
suchungen über den Bau des Schädels
von Monotremen und Reptilien.
Zoolog. Anzeiger, xxiii, pp. 213-229.
See also J. F. Van Bemmelen in Zoolog.
Anzeiger, xxiii, p. 449.
- Skilton, Dr.** 1858 A
Communication upon *Equus major*
found near Troy, N. Y.
Proc. Boston Soc. Nat. Hist., vi, pp. 303-304.
- Slade, D. D.** 1888 A
On certain vacuities or deficiencies in
the crania of mammals.
Bull. Mus. Comp. Zool., xiii, pp. 241-246, with
pls. i and ii.
- 1890 A
Osteological notes.
Science, xvi, pp. 332-333.
Treats of jugal arch of *Mammalia*.
- 1891 A
Osteological notes.
Science, xvii, pp. 317-318.
Treats of the jugal arch of the *Primates*.
- 1891 B
Osteological notes.
Science, xviii, pp. 53-54.
Treats of jugal arch of *Primates*.
- 1892 A
Osteological notes.
Science, xix, pp. 203-204.
Jugal arch of *Insectivora*.
- 1892 B
Osteological notes.
Science, xx, p. 46.
Discusses jugal arch of the *Rodentia*.
- 1893 A
Osteological notes.
Science, xxi, pp. 78-79.
Discusses jugal arch of the *Ungulata*.
- Smith, Horace P.** 1887 A
Bison latifrons. Leidy.
Jour. Cincinnati Soc. Nat. Hist., x, pp. 19-24,
pl. i.
- Smith, J.** 1895 A
Notes on a peculiarity in the form of
the mammalian tooth.
Proc. Roy. Soc. Edinburgh, xx, pp. 336-346,
with 1 page of 13 figs.
- Smith, J. Augustine.** 1846 A
Central cavity of the mastodon.
Amer. Quart. Jour. Agricult. and Sci., iii, pp.
19-22.
The word "central" in the caption of this
paper is probably a misprint for cerebral.
- Smith, J. Lawrence.** 1844 A
Communication on some fossil bones.
Amer. Jour. Sci. (1), xlvii, pp. 116-117.
On some bones from vicinity of Charleston,
S. C. Species undetermined.
- Snow, F. H.** 1878 A
On the dermal covering of a mosa-
sauroid reptile.
Trans. Kansas Acad. Sci., vi, pp. 54-58, with
1 pl. and 1 text-fig.

- Snow, F. H.**—Continued. 1887 A
On the discovery of a fossil bird track in the Dakota sandstone.
Trans. Kansas Acad. Sci., x, pp. 3-6, with 1 fig. in the text.
Regarded as possibly tracks of *Ichthyornis*.
- Sollas, W. J.** 1881 A
On a new species of *Plesiosaurus* (*P. conybeari*) from the lower Lias of Charmouth, with observations on *P. megacephalus* Stutchbury and *P. brachycephalus* Owen.
Quart. Jour. Geol. Soc., xxxvii, pp. 440-481, with pls. xxiii and xxiv and 14 woodcuts.
- Speir, Francis.**
See **Osborn, Scott, and Speir; Osborn and Speir.**
- Stainier, X.** 1894 A
Un *Spiraxis* nouveau du Dévonien belge.
Bull. Soc. Belge Géol., Paléont., Hydrol., viii, Mém., pp. 23-28, with 1 text fig.
- Stannius, H.** 1842 A
Ueber das Gebiss des Lama.
Archiv Anat. Physiol. u. wissenschaft. Med., Jahrg. 1842, pp. 388-389.
-
- 1842 B
Ueber Gebiss und Schädel des Walrosses unter Berücksichtigung der Frage, ob die Verschiedenheiten im Baue des Schädels zur Unterscheidung mehrerer Arten der Gattung *Trichechus* berechtigen.
Archiv Anat. Physiol. u. wissenschaft. Med., 1842, pp. 390-413.
-
- 1846 A
Bemerkungen über das Verhältniss der Ganoiden zu den Clupeiden, insbesondere zu *Butirinus*.
Rostock, 1846, 8vo, pp. 1-20.
-
- 1854 A
Handbuch der Zootomie von Siebold und Stannius. Zweiter Theil. Die Wirbelthiere von Hermann Stannius. Erstes Buch. Die Fische.
Zweite Auflage, Berlin, 1854. Pp. 1-279.
-
- 1856 A
Handbuch der Zootomie von Siebold und Stannius. Zweiter Theil. Wirbelthiere von Hermann Stannius. Zweites Buch. Zootomie der Amphibien.
Zweite Auflage, Berlin, 1856. Pp. 1-271.
- Starks, Edwin Chapin.** 1899 A
The osteological characters of the fishes of the suborder *Percoasces*.
Proc. U. S. Nat. Mus., xxii, pp. 1-10, with pls. i-iii.
The osteology of *Atherinopsis californiensis*, *Mugil cephalus*, and *Sphyrna argentea* is described and illustrated.
- Stecker, Anton.** 1877 A
Zur Kenntniss des Carpus und Tarsus bei *Chamaeleon*.
Sitzungsber. k. p. Akad. Wissensch. Wien. mat.-naturw. Cl., lxxv, pt. i, pp. 7-16, with pls. i, ii.
- Steenstrup, Jap.** 1855 A
Et Bidrag til Geirfuglens, *Alca impennis* Lin., Naturhistorie, og særligt til Kundshaben om dens tidligere Udbredningskreds.
Vidensk. Meddel. naturh. Forening Kjöbenhavn, 1855, pp. 33-118, with 1 map and 1 pl.
- Stehlin, H. G.** 1893 A
Zur Kenntniss der postembryonalen Schädelmetamorphosen bei Wiederkauern. Inauguraldissertation, Basel.
4to, Basel, 1893, pp. 1-81, with pls. i-iv.
-
- 1899 A
Ueber die Geschichte des Suiden-Gebisses. Erster Theil.
Abhandl. schweizer. paläontolog. Gesellsch., xxvi, pp. i-vii; 1-336.
- Steinmann, Gustav, und Döderlein, Ludwig.** 1890 A
Elemente der Paläontologie.
Pp. i-xix; 1-848 with 1,030 figs. in the text.
Leipzig, Wilhelm Engelmann.
Pp. 516-827 treat on the *Vertebrata*.
- Steitz, Auguste.** 1870 A
[Exhibition of molar tooth of *Elephas primigenius* from Helena, Montana.]
Trans. Acad. Sci. St. Louis, iii, p. xxxii.
- Stejneger, Leonhard.** 1883 A
Contributions to the natural history of the Commander Islands. No. 1. Notes on the natural history, including descriptions of new cetaceans.
Proc. U. S. Nat. Mus., vi, pp. 58-89.
Contains an account of Steller's sea-cow (*Rytina gigas*) and measurements of skulls establishing the existence of differences in the skulls of the two sexes.
-
- 1884 A
Contributions to the natural history of the Commander Islands. No. 2.

Stejneger, Leonhard—Continued.

Investigations relating to the date of the extermination of Steller's sea-cow.
Proc. U. S. Nat. Mus., vii, pp. 181-189.

1885 A

Natural history of birds.

The Standard Natural History, edited by John Sterling Kingsley, vol. iv, pp. 1-196, with figs. 1-98; 368-441, with figs. 171-221; 458-547, with figs. 228-278.

1886 A

On the extermination of the great northern sea-cow.

Jour. Amer. Geog. Soc., New York, xviii, pp. 317-328.

1887 A

How the great northern sea-cow (*Rytina*) became exterminated.

Amer. Naturalist, xxi, pp. 1047-1054.

1893 A

Skeletons of Steller's sea-cow preserved in the various museums.

Science, xxi, p. 81.

Stejneger, L., and Lucas, F. A. 1890 A

Contributions to the natural history of the Commander Islands. A.—Contributions to the history of Pallas's cormorant.

Proc. U. S. Nat. Mus., xii, pp. 83-94, with pls. ii-iv.

Steller, Georg Wilhelm.

1751 A

De bestiis marinis.

Novi Commentarii Acad. Scient. Imp. Petropolitane, ii, pp. 289-398.

The earliest account of the arctic sea-cow, containing descriptions of its anatomy, habits, etc. The portion of this work devoted to the sea-cow includes pp. 294-300, with pl. xiv.

Stephan, Pierre.

1900 A

Recherches histologiques sur la structure du tissu osseux des poissons.

Bull. Scient. France et Belgique, xxxiii, pp. 291-429, with pls. i-iii.

With a bibliographical index of 140 entries.

Sternberg, Charles.

1899 A

The first great roof.

Popular Science, xxxiii, pp. 126-127, with 1 text fig.

Describes the carapace of *Protostega gigas*.

Stevenson, W. D.

1884 A

The "man-eater shark," *Carcharodon carcharias*.

Amer. Naturalist, xviii, pp. 940-941, with 1 pl. and 1 woodcut.

Stewart, Alban.

1897 A

Restoration of *Oreodon culbertsonii*, Leidy.

Kansas Univ. Quarterly, vi, pp. 13-14, with pl. i.

Stewart, Alban—Continued. 1897 B

Notes on the osteology of *Bison antiquus*.

Kansas Univ. Quarterly, vi, pp. 127-136, with pl. xvii and 1 fig. in the text.

The species here described as *B. antiquus* is now assigned to *B. occidentalis* Lucas.

1898 A

A contribution to the knowledge of the ichthyic fauna of the Kansas Cretaceous.

Kansas Univ. Quarterly, vii, pp. 21-29, with pls. i and ii.

1898 B

Individual variations in the genus *Xiphactinus* Leidy.

Kansas Univ. Quarterly, vii, A, pp. 115-119, with pls. vii-x.

1898 C

Some notes on the genus *Saurodon* and allied species.

Kansas Univ. Quarterly, vii, A, pp. 177-186, with pls. xiv-xvi.

1898 D

A preliminary description of seven new species of fish from the Cretaceous of Kansas.

Kansas Univ. Quarterly, vii, A, pp. 191-196, with pl. xvii and text figs. 1-8.

1899 A

A preliminary description of the opercular and other cranial bones of *Xiphactinus* Leidy.

Kansas Univ. Quarterly, viii, A, pp. 19-21.

1899 B

Pachyrhizodus minimus, a new species of fish from the Cretaceous of Kansas.

Kansas Univ. Quarterly, viii, A, pp. 37-38, with 1 fig. in the text.

1899 C

Notice of three new Cretaceous fishes, with remarks on the *Saurodontidae* Cope.

Kansas Univ. Quarterly, viii, A, pp. 107-112.

1899 D

Notes on the osteology of *Anognmus polymicrodus* Stewart.

Kansas Univ. Quarterly, viii, A, pp. 117-121, with pl. xxxi.

1899 E

Leptichthys, a new genus of fishes from the Cretaceous of Kansas.

Amer. Geologist, xxiv, pp. 78-79.

1900 A

Teleosts of the Upper Cretaceous.

Univ. Geol. Surv., Kansas, vi, pp. 257-403, with pls. xxxiii-lxxiii, and 6 figs. in the text.

- Stewart, Thos. P.** 1828 A
Mammoth.
Amer. Jour. Sci. (1), xiv, pp. 188-189.
- Stickler, L.** 1899 A
Ueber den microscopischen Bau der Faltenzähne von *Eryops megacephalus* Cope.
Palæontographica, xvi, pp. 85-94, with pls. xi, xii.
- Stirrup, Mark.** 1893 A
The true horizon of the mammoth.
Geol. Magazine (3), x, pp. 107-111.
- 1894 A
The true horizon of the mammoth.
Geol. Magazine (4), i, pp. 80-82.
- Stock, Thos.** 1881 A
On some British specimens of the "Kammlatten" or "Kammleisten" of Professor Fritsch.
Ann. and Mag. Nat. Hist. (5), viii, pp. 90-96, with pl. vi.
- 1881 B
On the discovery of a nearly entire *Rhizodus* in the Wardie shales.
Geol. Magazine (2), viii, pp. 77-78.
- 1882 A
Further observations on Kammlatten, and note on *Ctenoptychius pectinatus*.
Ann. and Mag. Nat. Hist. (5), ix, pp. 253-257, with pl. viii.
- 1882 B
Notice of some discoveries recently made in Carboniferous vertebrate palæontology.
Nature, xxvii, p. 22.
Records finding of "*Diplodus*" teeth with spines quite different from those of *Pleuracanthus*. Also *Tristychius* associated with *Hybodus*.
- 1883 A
On the structure and affinities of the genus *Tristychius* Agass. .
Ann. and Mag. Nat. Hist. (5), xii, pp. 177-190, with pl. vii.
- Strauch, Alexander.** 1890 A
Bemerkungen über die Schildkröten-sammlung im Zoologischen Museum der K. Akademie der Wissenschaften zu St. Petersburg.
Mém. Acad. Imp. Sci. St. Pétersbourg (7), xxxviii, No. 2, pp. 1-43.
- Struckmann, C.** 1880 A
Ueber die Verbreitung des Renthiers in der Gegenwart und in älterer Zeit nach Maassgabe seiner fossilen Reste
- Struckmann, C.**—Continued.
unter besonderer Berücksichtigung der deutschen Fundorte.
Zeitschr. deutsch. geol. Gesellsch., xxxii, pp. 728-773.
- Strüver, Johannes.** 1864 A
Die fossilen Fische aus dem Keuper-sandstein von Coburg.
Zeitschr. deutsch. geol. Gesellsch., xvi, pp. 303-330, with pl. xlii.
Contains discussion of *Semionotus* and *Dic-tyopteryx*.
- Struthers, John.** 1871 A
On some points in the anatomy of a great fin-whale (*Balenoptera musculus*).
Jour. Anat. and Physiol., i, pp. 107-125.
Discusses the rudimentary hind limbs, the pelvic bones, ribs, sternum, and cervical vertebrae.
- 1872 A
On the cervical vertebrae and their articulations in fin-whales.
Jour. Anat. and Physiol., vii, pp. 1-55, pls. i, ii.
- 1881 A
On the bones, articulations, and muscles of the rudimentary hind limbs of the Greenland right-whale (*Balæna mysticetus*).
Jour. Anat. and Physiol., xv, pp. 141-176, 301-321, pls. xiv-xvii.
- 1885 A
On the rudimentary hind limb of *Megaptera longimana*.
Amer. Naturalist, xix, pp. 124-125.
Abstract of paper read at Montreal before Brit. Assoc. Adv. Sci., 1884.
- 1885 B
On the development of the foot of the horse.
Nature, xxxii, pp. 560-561.
A short note.
- 1888 A
On some points in the anatomy of a *Megaptera longimana*.
Jour. Anat. and Physiol., xxii, pp. 240-282, 441-460, 629-654, pls. x-xii; xxiii, pp. 124-163, pl. vi; 308-335, 368-373.
The last two installments of this paper belong to the year 1889. The first installment, not above cited, is found in vol. xxiii, pp. 109-124, and deals with the soft portions of the anatomy.
- 1893 A
On the rudimentary hind limb of a great fin-whale (*Balenoptera musculus*) in comparison with those of the hump-

Struthers, John—Continued.

back whale and the Greenland right-whale.

Jour. Anat. and Phys., vol. xxvii, with pls. xvii-xx.

1893 B

On the development of the bones of the foot of the horse, and of digital bones generally; and on a case of polydactyly in the horse.

Jour. Anat. and Physiol., xxvii, pp. 51-62, with pl. 1.

1895 A

Carpus of the Greenland right-whale (*Balena mysticetus*) and of fin-whales.

Jour. Anat. and Physiol., xxix, pp. 145-187, with pls. II-IV.

Stutchbury, S.

See **Riley and Stutchbury**.

Swallow, G. C.

1866 A

Notice of remains of the horse in the altered drift of Kansas.

Trans. Acad. Sci. St. Louis, II, p. 418.

The species not distinguishable by the writer from the common horse.

Swinerton, H. H.

See **Howes and Swinerton**.

T. R. D.

1839 A

Fossil shells and bones (*Megatherium*) near Savannah, Ga.

Amer. Jour. Sci., I, 1839, p. 380.

T. R. J.

1889 A

Human relics and bones of mastodon found in association.

Geol. Magazine (3), vi, p. 192.

Said to have been found in Attica, Wyoming County, N. Y.

Taeker, Julius.

1892 A

Zur Kenntniss der Odontogenese bei Ungulaten.

Pp. 27, with 4 pls. Dorpat, 1892.

Teller, Friedrich.

1884 A

Neue Anthracotherienreste aus Südsteiermark und Dalmatien.

Beiträge Paläontologie Österreich-Ungarns und des Orients (Mojšlovics and Neumayer), IV, pp. 45-134, with pls. XI-XIV.

On pages 47, 48 is a list of papers which treat of the genus *Anthracotherium*.

1891 A

Ueber den Schädel eines fossilen Dipnoers, *Ceratodus sturii*, nov. spec., aus den Schichten der oberen Trias der Nordalpen.

Abhandl. k. k. geol. Reichsanstalt Wien., xv, Heft 3, pp. 1-39, with pls. I-IV.

On pp. 4-5 is found a long list of works on the genus *Ceratodus*.

Thacher, James K.

1877 A

Median and paired fins, a contribution to the history of vertebrate limbs.

Trans. Connecticut Acad. Arts and Sci., III, pp. 281-310, pls. xlix-lx.

Ventral fins of ganoids.

1887 B

Trans. Connecticut Acad. Arts and Sci., IV, pp. 223-242, pls. I, II.

Thévenin, Armand.

1896 A

Mosasauriens de la craie grise de Vaux-Éclusier près Péronne (Somme).

Bull. Soc. Géol. France (3), xvii, pp. 900-911, with pls. xxix, xxx, and 8 figs. in the text.

1896 B

Nouveaux mosasauriens trouvés en France.

Comptes rend. Acad. Sci. Paris, cxxiii, pp. 1319-1320.

Thilenius, G.

1894 A

Ueber Sesambeine fossiler Säugetiere. Anatom. Anzeiger, x, pp. 42-48, with 2 figs.

Thomas, Oldfield.

1888 A

On the homologies and succession of the teeth in the *Dasyuridae*, with an attempt to trace the history of the evolution of mammalian teeth in general. Philos. Trans. Roy. Soc. Lond., clxxviii, pp. 443-462; pls. 27, 28.

Reviewed by M. Schlosser in Archiv f. Anthrop., xix, pp. 115-116.

1888 B

On a new and interesting annectant genus of *Muridae*, with remarks on the relations of the Old and New-World members of the family.

Proc. Zool. Soc. Lond., 1888, pp. 130-135, with pl. v.

1890 A

Remarks on Dr. Schosser's "Ueber die Deutung des Milchgebisses der Säugetiere."

Biolog. Centralbl., x, pp. 216-219.

1892 A

On the species of *Hyracoidea*.

Proc. Zool. Soc. Lond., 1892, pp. 50-76, with pl. III.

1892 B

Notes on Dr. W. Kükenthal's discoveries in mammalian dentition.

Ann. and Mag. Nat. Hist. (6), ix, pp. 306-313.

1896 A

On the genera of rodents; an attempt to bring up to date the current arrangement of the order.

Proc. Zool. Soc. Lond., 1896, pp. 1012-1028.

See for remarks on this paper Dr. T. S. Palmer in Science, vi, p. 103.

- Thomas, O., and Lydekker, R.** 1897 A
On the number of grinding teeth possessed by the manatee.
Proc. Zool. Soc. Lond., 1897, pp. 596-600, with pl. xxxvi.
- Thompson, D'Arcy W.** 1886 A
On the hind limb of *Ichthyosaurus*, and on the morphology of vertebrate limbs.
Jour. Anat. and Physiol., xx, pp. 532-535, with 2 text figs.
- 1890 A
On the systematic position of *Zeuglodon*.
Studies from the Museum of Zoology, University Coll., Dundee, No. 9, pp. 1-8, with 10 text figs.
- 1890 B
On the systematic position of *Hesperornis*.
Studies from the Museum of Zoology, University Coll., Dundee, No. 10, pp. 1-15, with 17 text figs.
- Thompson, James.** 1868 A
Note on the spines of *Gyracanthus*.
Trans. Geol. Soc. Glasgow, iii, pp. 130-133.
- 1870 A
On teeth and dermal structure associated with *Ctenacanthus*.
Report Brit. Assoc. Adv. Sci., 39th meeting, Exeter, 1869, pp. 102-103.
Regards *Ctenacanthus*, *Cladodus*, and *Diplo-dus* as representing one form.
- 1871 A
On *Ctenacanthus hybodontoides*, Egerton.
Trans. Geol. Soc. Glasgow, iv, pp. 59-62, with pls. ii, iii.
- Thompson, J. Arthur.** 1897 A
As regards dentitions—a notice of some new facts and theories.
Proc. Scottish Micros. Soc., ii, pp. 36-50.
- Thompson, Zadock.** 1850 A
An account of some fossil bones found in Vermont in making excavations for the Rutland and Burlington Railroad.
Amer. Jour. Sci. (2), ix, pp. 256-263, with 2 pages of cuts, 13 in number.
- 1853 A
History of Vermont, natural, civil, and statistical.
Appendix, pp. 5-64.
Contains description and figures of *Beluga vermontana* and an account of the finding of some remains of *Elephas primogenius*?
- Thompson, Zadock—Continued.** 1859 A
A Vermont whale.
Edinb. New Philos. Jour., x, p. 299.
Records finding of *Beluga vermontana* at Charlotte, Vt., in 1849.
- Times, H. W. Maret.** 1896 A
Notes on the dentition of the dog.
Anatom. Anzeiger, xi, pp. 537-546, with 5 figs.
Contains a list of papers written on the subject discussed, the teeth of mammals, with especial reference to the existence of "pre-milk" teeth.
- 1896 B
On the tooth-genesis in the *Camidae*.
Jour. Linn. Soc. Lond., Zool., xxv, pp. 445-480, with 8 figs. in the text.
Contains numerous references to the literature.
- Todd, Albert.** 1876 A
[Exhibition of tooth identified as that of *Mastodon angustidens*, found in Pike County, Mo.]
Trans. Acad. Sci. St. Louis, iii, p. cxcii.
- Toll, Eduard.** 1895 A
Die fossilen Eislager und ihre Beziehungen zu den Mammuthleichen.
Mém. Acad. Imp. Sci. St. Pétersbourg (7), xlii, No. 13, pp. 1-86, with pls. i-vii.
- Tomes, Charles S.** 1898 A
A manual of dental anatomy, human and comparative.
Fifth edition, 8vo, Philadelphia, 1898, pp. i-viii; 1-596, with figs. 1-273.
- Tomes, John.** 1850 A
On the structure of the dental tissues of the order *Rodentia*.
Philos. Trans. Roy. Soc. Lond., 1850, pp. 529-567, with pls. xliii-xlvi.
- Topinard, Paul.** 1892 A
De l'évolution des molaires et prémolaires chez les Primates et en particulier chez l'homme.
L'Anthropologie, Paris, 1892, pp. 641-710, with 8 figs.
Reviewed by M. Schlosser in Archiv f. Anthrop., xxiii, pp. 157-159.
- Tornier, Gustav.** 1886 A
Fortbildung und Umbildung des Ellbogengelenks während der Phylogenesis der einzelnen Säugethiergruppen.
Morpholog. Jahrbuch, xii, pp. 407-413, with 2 woodcuts.
- 1888 A
Die Phylogenese des terminalen Segmentes der Säugethier-Hintergliedmassen.

Tornier, Gustav—Continued.

Morpholog. Jahrbuch, xiv, pp. 223-328, with pls. xi, xii.

"Die Begriffe, 'Fuss,' und 'terminales Segment der hinteren Gliedmassen' werden von mir als gleichwerthig angesehen."

1890 A

Die Phylogenese des terminalen Segmentes der Säugethier-Hintergliedmassen.

Morpholog. Jahrbuch, xvi, pp. 401-483, with pls. xvii, xviii.

Toula, Franz.

1892 A

Zwei neue Säugethierfundorte auf der Balkanhalbinsel.

Sitzungsber. Cl. k. Akad. Wissensch. Wien. math.-naturw. ci, Abth. I, pp. 608-615, with plate.

Describes *Menodus ? rumelicus*, which is compared with *M. proutii* (Lelidy).

1897 A

Phoca vindobonensis n. sp. von Nussdorf in Wien.

Beiträge Paläontologie Oesterreich-Ungarns und des Orients (Mojzsisovics und Neumayer), xi, pp. 47-70, with pls. ix-xi.

This paper contains a bibliography and a list of the described fossil species of seals.

Toula, Franz, and Kail, J. A.

1885 A

Ueber einen Krokodil-Schädel aus den Tertiärlagerungen von Eggenburg in Niederrösterreich.

Denkschr. k. Akad. Wissensch. Wien, pp. 229-356, with 3 pls. and 3 text figs.

Traquair, R. H.

1867 A

Description of *Pygopterus greenocki* (Agassiz), with notes on the structural relations of the genera *Pygopterus*, *Amblypterus*, and *Eurymotus*.

Trans. Roy. Soc. Edinburgh, xxiv, pp. 701-713, with pl. xiv.

Description of species now referred by A. S. Woodward to *Nemaloptychius*.

1870 A

On the cranial osteology of *Polypterus*. Jour. Anat. and Physiol., v, pp. 166-183, pl. vi.

1871 A

Notes on the genus *Phaneropleuron* (Huxley), with a description of a new species from the Carboniferous formation.

Geol. Magazine (1), viii, pp. 529-535, with pl. xiv and 1 fig. in the text.

For supplementary remarks see Geol. Magazine (1), ix, 1872, p. 271.

Traquair, R. H.—Continued. 1873 A

On a new genus of fossil fish of the order *Dipnoi*.

Geol. Magazine (1), x, pp. 552-555, with pl. xiv and 1 woodcut.

Describes new genus and species, *Ganorhynchus woodwardi*.

1875 A

On the structure and systematic position of the genus *Cheirolepis*.

Ann. and Mag. Nat. Hist. (4), xv, pp. 237-248, with pl. xvii.

1875 B

On some fossil fishes from the neighborhood of Edinburgh.

Ann. and Mag. Nat. Hist. (4), xv, pp. 258-268, with pl. xvi.

Describes and figures *Nemaloptychius greenocki*, *Wardichthys*, n. g., and *Rhizodus hidderti*.

1875 C

On the structure and affinities of *Tristichopterus alatus* Egerton.

Trans. Roy. Soc. Edinburgh, xxvii, pp. 383-396.

1877 A

On the Agassizian genera *Amblypterus*, *Palæoniscus*, *Gyrolepis*, and *Pygopterus*. Quart. Jour. Geol. Soc., xxxiii, pp. 548-578.

1877 B

The Ganoid fishes of the British Carboniferous formations. Part I. *Palæoniscidae*.

Palæontographical Society, xxxi, pp. 1-60, pls. i-vii.

1877 C

On the structure of the lower jaw in *Rhizodopsis* and *Rhizodus*.

Ann. and Mag. Nat. Hist. (4), xix, pp. 299-305.

1878 A

On the genera *Dipterus* Sedgw. & Murch., *Palædaphus* Van Beneden and De Koninck, *Holodus* Pander, and *Cheirodus* McCoy.

Ann. and Mag. Nat. Hist. (5), ii, pp. 1-17, with pl. iii.

Describes the structure of *Dipterus* and places the genus in the *Dipnoi*. *Palædaphus* also belongs to the *Dipnoi*.

1879 A

On the structure and affinities of the *Platysomidae*.

Trans. Roy. Soc. Edinburgh, xxix, pp. 343-391, with pls. iii-vi.

Review of this paper in Geol. Magazine (2), vii, pp. 318-321.

Traquair, R. H.—Continued. 1881 A
Report on the fossil fishes collected by the Geological Survey of Scotland in Eekdale and Liddesdale. Part I. *Ga-noidei*.

Trans. Roy. Soc. Edinburgh, xxx, pp. 15-71, with pls. i-vi.

1881 B
On the cranial osteology of *Rhizodopsis*.

Trans. Roy. Soc. Edinburgh, xxx, pp. 167-179, with 3 figs. in the text.

1884 A
Remarks on the genus *Megalichthys* Agassiz, with description of a new species.

Geol. Magazine (3), i, pp. 115-121, plate v.
See also Proc. Roy. Phys. Soc. Edinburgh, viii, pp. 67-77, with pl. iv.

1884 B
Description of a fossil shark (*Ctenacanthus costellatus*) from the Lower Carboniferous rocks of Eekdale, Dumfriesshire.

Geol. Magazine (3), i, pp. 3-8, with pl. ii.

1884 C
Notes on the genus *Gyracanthus* Agassiz.

Ann. and Mag. Nat. Hist. (5), xlii, pp. 37-48.

1885 A
On a specimen of *Psephodus magnus* Agassiz, from the Carboniferous limestone of East Kilbridge, Lanarkshire.

Geol. Magazine (3), ii, pp. 337-344.

1885 B
On a specimen of *Psephodus magnus* Agassiz, from the Carboniferous limestone of East Kilbridge, Lanarkshire.

Trans. Geol. Soc. Glasgow, vii, pp. 392-402, with pl. xvi.

1886 A
On *Harpacanthus*, a new genus of Carboniferous selachian spines.

Ann. and Mag. Nat. Hist. (5), xviii, pp. 493-496, with 2 figs. in the text.

1887 A
Notes on *Chondrosteus acipenseroides* Agassiz.

Geol. Magazine (3), iv, pp. 248-257, with 5 figs.
Also in Proc. Roy. Phys. Soc. Edinburgh, ix, pp. 349-361, 1887.

1888 A
Notes on Carboniferous *Selachii*.

Geol. Magazine (3), v, pp. 81-86; 101-104.
See also Proc. Roy. Phys. Soc. Edinburgh, ix, pp. 412-421.

Discusses *Cladodontidae*, *Orodontidae*, *Cochlidontidae*, *Petalodontidae*, and *Oracanthus*.

Traquair, R. H.—Continued. 1888 B
Notes on the nomenclature of the fishes of the Old Red sandstone of Great Britain.

Geol. Magazine (3), v, pp. 507-517.

1888 C
On the structure and classification of the *Asterolepidae*.

Ann. and Mag. Nat. Hist. (6), ii, pp. 485-504, with pls. xvii, xviii.

Also in Proc. Roy. Phys. Soc. Edinburgh, x, pp. 23-46, pls. i, ii.

1889 A
Homosteus Asmuss compared with *Coccoosteus* Agassiz.

Geol. Magazine (3), vi, pp. 1-8, pl. i.
Also in Proc. Roy. Phys. Soc. Edinburgh, x, pp. 47-57, with pl. iii.

1889 B
Note on the genera *Tristycanthus* and *Ptychacanthus*.

Geol. Magazine (3), vi, pp. 27-28.

1889 C
On the systematic position of the "Dendrodont" fishes.

Geol. Magazine (3), vi, pp. 490-492.

1890 A
Notes on the Devonian fishes of Scaumenac Bay and Campbelltown, in Canada.

Geol. Magazine (3), vii, pp. 15-22.

1890 B
On *Phlyctænius*, a new genus of *Coccosteidae*.

Geol. Magazine (3), vii, pp. 55-60, with pl. iii.
See also Proc. Roy. Phys. Soc. Edinburgh, x, pp. 227-235, 1891, for reprint, with *Phlyctænaopsis* substituted in the title for *Phlyctænius*.

1890 C
On the supposed pectoral limb in *Coccoosteus decipiens*.

Geol. Magazine (3), vii, p. 235.

A reply to Prof. V. Koenen, Geol. Magazine, vii, p. 191.

1890 D
On the structure of *Coccoosteus decipiens* Agassiz.

Ann. and Mag. Nat. Hist. (6), v, pp. 125-126, with pl. x.

Also in Proc. Roy. Phys. Soc. Edinburgh, 1889-90, pp. 211-224, pl. x.

1890 E
Note on *Phlyctænius*, a new genus of *Coccosteidae*.

Geol. Magazine (3), vii, p. 144.

A short note proposing *Phlyctænaopsis* to replace *Phlyctænius*, regarded as being preoccupied by *Phlyctænum* of Zittel.

- Traquair, R. H.—Continued.** 1890 F
List of the fossil *Dipnoi* and *Ganoidei*
of Fife and the Lothians.
Proc. Roy. Soc. Edinburgh, xvii, pp. 385-400.
- 1891 A
Review of A. S. Woodward's "Catalogue of the fossil fishes in the British Museum."
Geol. Magazine (3), viii, pp. 123-129.
- 1891 B
On the structure of *Coccosteus decipiens*, Agassiz.
Proc. Roy. Phys. Soc. Edinburgh, x, pp. 211-224, with pl. x.
See Traquair, R. H., 1890 D.
- 1893 A
Notes on the Devonian fishes of Campbelltown and Scaumenac Bay.
Geol. Magazine (3), x, pp. 145-149, with 1 text fig.
Treats of *Protodus fexi*, *Doliodus problematicus*, *Cheiracanthus costellatus*, *Cephalaspis campbelltonensis*, *Cephalaspis fexi*, and *Phlyctenaspis acedica*.
- 1893 B
Fauna der Gaskohle und der Kalksteine des Perm-formations Böhmens.
Geol. Magazine (3), x, pp. 175-178.
Review of Prof. Fritsch's work with title given above.
- 1893 C
Notes on the Devonian fishes of Campbelltown and Scaumenac Bay in Canada. No. 3.
Geol. Magazine (3), x, pp. 262-267.
Describes *Scaumenactia curta*, *Coccosteus canadensis*, *Gyrolepis quebecensis*, and *Eusthenopteron foordii*.
See notice of this paper in Amer. Naturalist, vol. xxvii, p. 817.
- 1893 D
Notes on the Devonian fishes of Campbelltown and Scaumenac Bay in Canada. Parts 1 and 2.
Proc. Roy. Phys. Soc. Edinburgh, xii, pp. 111-125.
Contains descriptions of the species referred to under Traquair, R. H., 1893 A, and Traquair, R. H., 1893 C.
- 1894 A
On a new species of *Diplacanthus*, with remarks on the Acanthodian shoulder-girdle.
Geol. Magazine (4), i, pp. 254-257.
- 1894 B
Notes on Palæozoic fishes, No. 1.
Ann. and Mag. Nat. Hist. (6), xiv, pp. 368-374, with pl. ix and 1 text fig.
Describes and figures an English species of *Phlyctenaspis*, a new one of *Acanthaspis*, and one of *Eurylepis*.
- Traquair, R. H.—Continued.** 1894 C
A monograph of the fishes of the Old Red sandstone of Britain. Part II, No. 1. The *Asterolepidae*.
Palæontographical Society, xlviii, pp. 63-90, with pls. xv-xviii, and text figs. 34-50.
- 1896 A
Review of A. S. Woodward's "Catalogue of the fossil fishes in the British Museum. Part III."
Geol. Magazine (4), iii, pp. 124-127.
- 1899 A
Report on fossil fishes collected by the Geological Survey of Scotland in the Silurian rocks of the south of Scotland.
Trans. Roy. Soc. Edinburgh, xxxix, pp. 827-864, with pls. 1-v and 18 text figs.
- 1900 A
Notes on *Drepanaspis gmündenensis* Schlüter.
Geol. Magazine (4), vii, pp. 153-159, with 3 figs. in the text.
- 1900 B
The bearings of fossil ichthyology on the problem of evolution.
Geol. Magazine (4), vii, pp. 463-470, 516-524.
- Trautschold, H.** 1874 A
Fischreste aus dem Devonischen des Gouvernements Tula.
Nouv. Mém. Soc. Imp. Natur. Moscou, xiii, pp. 263-276, with pls. xxvi, xxvii.
Figures and describes various species of *Cladodus*, *Orodus*, *Helodus*, *Psammodus*, etc.
- 1874 B
Die Kalkbrüche von Mjatschkowa. Eine Monographie des oberen Bergkalks.
Nouv. Mém. Soc. Imp. Natur. Moscou, xiii, pp. 277-326, with pls. xxviii-xxxii.
- 1879 A
Ueber eine Ichthyosaurus-Flosse aus dem Moskauer Kimmeridge.
Verhandl. russ.-kais. mineralog. Gesellsch. St. Petersburg (2), xii, pp. 168-173, with pl. v.
- 1879 B
Die Kalkbrüche von Mjatschkowa. Eine Monographie des oberen Bergkalks. Schluss.
Nouv. Mém. Soc. Imp. Natur. Moscou, xiv, pp. 1-82, with pls. 1-vii.
- 1880 A
Ueber *Tomodus* Agassiz.
Bull. Soc. Imp. Natur. Moscou, iv, pt. 2, pp. 139-140.
- 1880 B
Ueber *Bothriolepis panderi* Lahusen.
Bull. Soc. Imp. Natur. Moscou, iv, pt. 2, pp. 169-179, with 1 pl. and 5 text figs.

- Trautschold, H.**—Continued. 1880 C
 Ueber *Dendrodus* und *Cocosteus*.
 Verhandl. russ.-kais. mineralog. Gesellsch.
 St. Petersburg (2), xv, pp. 139-156, with pls.
 iii-x.
- 1883 A
 Ueber *Edestus* und einige andere
 Fischreste des Moskauer Bergkalks.
 Bull. Soc. Imp. Natur. Moscou, lvii, pt. 2, pp.
 160-174, with pl. v and 3 text figs.
- 1886 A
 Ueber das Genus *Edestus*.
 Bull. Soc. Imp. Natur. Moscou, lxi, pt. i, pp.
 94-99.
- 1888 A
 Ueber *Edestus protopirata*, Trd.
 Zeitschr. deutsch. geol. Gesellsch., xi, pp.
 750-753, with 2 figs. in the text.
- 1889 A
 Ueber *Cocosteus megalopteryx*, Trd.,
C. obtusus und *Cheliophorus verneuili*
 Ag.
 Zeitschr. deutsch. geol. Gesellsch., xii, pp.
 37-48, with pls. iii-vi.
- 1889 B
 Ueber vermeintliche Dendrodonten.
 Zeitschr. deutsch. geol. Gesellsch., xii, pp.
 621-634, with pls. xxiii-xxv.
- 1890 A
 Ueber *Protopirata centrodon*, Trd.
 Bull. Soc. Imp. Natur. Moscou (n. s.), iv,
 pp. 317-321, with 1 fig. in the text.
 The genus *Edestus* is considered.
- Treuenfels, Paul.** 1896 A
 Die Zähne von *Myliobatis aquila*.
 Inaugural dissertation at Univ. Basel. Bres-
 lau, 1896, 8vo., pp. 1-34, with pls. i, iii.
- Troost, G.** 1835 A
 On the localities in Tennessee in
 which bones of the gigantic mastodon
 and *Megalonyx jeffersonii* are found.
 Trans. Geol. Soc. Penn., i, pp. 139-146; 236-
 243.
- Troschel, F. H.** 1861 A
 Ueber den Unterkiefer der Schlangen
 und über die fossile Schlange von Rott.
 Archiv Naturgesch., xxvii, i, pp. 326-360,
 with pl. x.
- Trouessart, E. L.** 1889 A
 Mammifères.
 Annuaire Géol. Universel, v, 1888, Paris.
 Pp. 915-970.
 Généralités, pp. 915-916; Analyse des princi-
 paux mémoires relatifs à la classe des mammi-
 fères en général, pp. 916-942; Résumé systéma-
 tique espèces nouvelles et travaux relatifs aux
 différents ordres, familles, etc., pp. 942-970.
- Trouessart, E. L.**—Continued. 1892 A
 The fiction of the American horse
 and the truth on this disputed point.
 Science, xx, p. 188.
- 1897 A
 Catalogus Mammalium tam viven-
 tium quam fossilium. Nova editio.
 Berolini, 1897, pp. 665-1264, 8vo.
 Contains the orders *Primates*, *Prosimiæ*
Chiroptera, *Insectivora*.
- 1898 A
 Catalogus Mammalium tam viven-
 tium quam fossilium. Nova editio.
 Berolini, 1898, pp. 665-1264, 8vo.
 Contains the orders *Sirenia*, *Cetacea*, *Eden-
 tata*, *Marsupialia*, *Allotheria*, *Monotremata*.
- 1899 A
 Catalogus Mammalium tam viven-
 tium quam fossilium.
 Berolini, 1899, pp. 1265-1469, 8vo.
 Appendix (Addenda et Corrigenda) and
 alphabetical index.
- True, Frederick W.** 1889 A
 A review of the family *Delphinidæ*.
 Bull. U. S. Nat. Mus., No. 36, Washington,
 D. C., 1889, pp. 191, with 47 pls.
- 1891 A
 The puma, or American lion: *Felis
 concolor* of Linnæus.
 Ann. Rep. Smithson. Inst., 1889; Rep. Nat.
 Mus., pp. 591-608, with pl. xciv.
- 1896 A
 A revision of the American moles.
 Proc. U. S. Nat. Mus., xix, pp. 1-111, with pls.
 i-v and 46 text figs.
- Tscherski, J. D.** 1892 A
 Beschreibung der Sammlung post-
 tertärer Säugethiere.
 Mém. Acad. Imp. Sci., St. Pétersbourg (7),
 xl, No. 1, pp. i-v, 1-511, with pls. i-vi.
- Tullberg, Tycho.** 1899 A
 Ueber das System der Nagethiere:
 eine phylogenetische Studie.
 8vo, pp. i-v; 1-514; A1-A18, pls. i-lvii.
 Upsala, 1899.
 Pp. 501-514 are occupied by a list of works
 dealing with the subject.
- Tuomey, M.** 1847 A
 Discovery of the cranium of the
 zeuglodon.
 Amer. Jour. Sci. (2), iv, pp. 283-285, with 1
 fig. in the text.
- 1847 B
 Notice of the discovery of a cranium
 of the zeuglodon.
 Proc. Acad. Nat. Sci. Phila. iii, pp. 151-153,
 with 2 woodcuts.

- Tuomey, M.**—Continued. 1847 C
Notice of the discovery of a cranium
of the zeuglodon (*Basilosaurus*).
Jour. Acad. Nat. Sci. Phil'a. (2), i, pp. 16-17.
- 1850 A
[Remarks on a fossil reptile from
Alabama, belonging to the genus *Leio-*
don. Followed by remarks by Prof.
L. Agassiz.]
Proc. Amer. Assoc. Adv. Sci., 3d meeting,
Charleston, S. C., 1850, p. 74.
- 1858 A
[Descriptions and figures of *Ctena-*
canthus elegans, *Cladodus newmani*, *C.*
magnificus.]
Second Biennial Report Geol. Alabama, by
M. Tuomey, A. M., edited by J. W. Mallet,
Ph. D. Pp. i-xix, 1-292.
Appended are lists of Cretaceous and Ter-
tiary fossils, including a number of sharks, pp.
261-268. The species named above are de-
scribed on pp. 38-40.
- Turner, George.** 1799 A
Memoir on the extraneous fossils
denominated mammoth bones; princi-
pally designed to show that they are
the remains of more than one species
of nondescript animal.
Trans. Amer. Philos. Soc., iv, pp. 510-518.
- Turner, H. N., jr.** 1848 A
Observations relating to some of the
foramina at the base of the skull in
Mammalia, and on the classification of
the order *Carnivora*.
Proc. Zool. Soc. Lond., 1848, pt. xvi, pp. 63-
88.
- 1850 A
On the generic subdivisions of the
Boridae, or hollow-horned ruminants.
Proc. Zool. Soc. Lond., 1850, pt. xviii, pp.
164-178.
- 1872 A
Some observations on the dentition
of the narwhal (*Monodon monoceros*).
Jour. Anat. and Physiol., vii, pp. 75-79.
- 1873 A
Note on a bidental skull of a nar-
whal.
Jour. Anat. and Physiol., viii, pp. 133-134.
- 1876 A
Additional note on the dentition of
the narwhal (*Monodon monoceros*).
Jour. Anat. and Physiol., x, p. 516.
- Turner, William.** 1899 A
On the development and morphology
of the marsupial shoulder girdle.
Trans. Roy. Soc. Edinburgh, xxxix, pp. 749-
770, with pls. i, ii.
- Ubaghs, Casimir.** 1875 A
La Chelonia hoffmanni.
Ann. Soc. Géol. Belgique, ii, pp. 197-206.
- Udden, J. A.** 1891 A
Megalonyx beds in Kansas.
Amer. Geologist, vii, pp. 340-345, with 3
woodcuts in the text.
- 1899 A
Dipteris in the American Middle
Devonian.
Jour. Geology, vii, pp. 494-496, with 1 fig. in
the text.
- Underwood, Lucien.** 1890 A
A bison at Syracuse, N. Y.
Amer. Naturalist, xxiv, pp. 963-964.
Followed by a note by Professor Cope iden-
tifying the specimen as *Bos americanus*.
- Ussow, S. A.** 1898 A
Die Entwicklung der Cycloid-
Schuppe der Telostier.
Bull. Soc. Imp. Natur. Moscou (n. s.), xi,
1897, pp. 339-366, with pls. vi, vii.
- 1900 A
Zur Anatomie und Entwicklungsges-
chichte der Wirbel der Teleostier.
Bull. Soc. Imp. Natur. Moscou (n. s.), xv,
1900, pp. 175-240, with pls. i-iv.
- Vaillant, Léon.** 1883 A
Remarques sur les affinités naturelles
des familles composant le sous-ordre des
poissons malacoptérygiens abdomi-
naux.
Ann. Sci. Naturelles (6), Zool., xv, art. 7, pp.
1-13.
- 1891 A
Sur la signification taxonomique du
genre *Emys* C. Duméril.
Ann. Sci. Naturelles (7), Zool., xii, pp. 51-63.
- 1894 A
Essai sur la classification générale des
chéloniens.
Ann. Sci. Naturelles (7), Zool., xvi, pp. 331-346.
- Van Beneden, P. J.** 1861 A
Un mammifère nouveau du Crag
d'Anvers.
Bull. Acad. Roy. Belgique (2), xii, pp. 22-28.
Describes *Squalodon antverpiensis*, and holds
that *Squalodon* and *Zeuglodon* belong to differ-
ent families.

Van Beneden, P. J.—Cont'd. 1861 B
Sur le développement de la queue des
poissons plagiostomes.

Bull. Acad. Roy. Belgique (2), xi, pp. 287-
293, with 1 pl.

Published also as a separate, with pp. 3-8.

1865 A
Recherches sur les ossements prove-
nant du Crag d'Anvers, les *Squalodons*.

Mém. Acad. Roy. Belgique, xxxv, art. iii,
pp. 1-85, with pls. i-iv, and many text figs.

On pp. 11-12 of this memoir is found a list of
the works which have been published on the
Zeuglodonts and *Squalodonts*.

1868 A
De la composition du bassin des
cétacés.

Bull. Acad. Roy. Belgique (2), xxv, pp. 428-
433, with 1 pl.

1872 A
Les *Balenidés* fossiles d'Anvers.
Jour. de Zoologie, i, pp. 407-419.
Extract from Bull. Acad. Roy. Belgique (2),
xxxiv, pp. 6-20, 1872.

1872 B
Les baleines fossiles d'Anvers.
Bull. Acad. Roy. Belgique (2), xxxiv, pp.
6-20.

1875 A
Le squelette de la baleine fossile du
Musée de Milan.

Bull. Acad. Roy. Belgique (2), xi, pp. 736-
758, with 1 pl.

Describes and figures *Plesiocetus cortesi*.

1877 A
Description des ossements fossiles des
environs d'Anvers. Première partie:
Les phoques ou les amphitériens.

Ann. Mus. Roy. d'Hist. Nat. Belgique, i,
pp. 1-88, with pls. i-xviii, and 17 figs. and 8
maps in the text.

1877 B
Note sur un cachalot nain du Crag
d'Anvers (*Physeterula dubusii*).

Bull. Acad. Roy. Belgique (2), xlv, pp. 861-
856, with 1 pl.

1880 A
Description des ossements fossiles
des environs d'Anvers. Deuxième partie:
Cétacés, genres *Balenula*, *Balena*,
et *Balenotus*.

Ann. Mus. Roy. d'Hist. Nat. Belgique, iv, pp.
1-83, with pls. i-xxxix.

This work contains a very full bibliography
of the fossil *Cetacea*.

1880 B
Les mysticètes à court fanons des
sables des environs d'Anvers.

Bull. Acad. Roy. Belgique (2), i, pp. 11-26.

Van Beneden, P. J.—Cont'd. 1882 A
Description des ossements fossiles des
environs d'Anvers. Troisième partie:
Cétacés, genres *Megaptera*, *Balenoptera*,
Burhinopsis, et *Erpetocetus*.

Ann. Mus. Roy. d'Hist. Nat. Belgique, vii, pp.
1-90, with pls. xi-cix.

Part iv, describing the genus *Plesiocetus*, is
found in vol. ix of the Annales. Pt. v, describ-
ing *Amphicetus*, *Heterocetus*, etc., is in vol. xiii.
These genera have not been found in North
America.

1882 B
Une baleine fossile de Croatie appar-
tenant au genre *Mésocète*.

Mém. Acad. Roy. Sci. Lettres et Beaux-Arts,
xlv, art. 2, pp. 3-29, with pls. 1-11.

Van Beneden, P. J., and Gervais,
P. 1880 A

Ostéographie des cétacés vivants et
fossiles, comprenant la description et
l'iconographie du squelette et du sys-
tème dentaire de ces animaux; ainsi
que des documents relatifs à leur his-
toire naturelle.

Paris, 1880, pp. i-viii, 1-634, with atlas of
64 pls.

Van Beneden, P. J. and Koninck,
L. G. de. 1864 A

Notice sur le *Palaedaphus insignis*.

Bull. Acad. Roy. Belgique (2), xvii, pp. 143-
151, with pls. i, ii.

Van Besselaer, Jeremiah. 1826 A

Notice of a recent discovery of the
fossil remains of the mastodon.

Amer. Jour. Sci. (1), xi, pp. 246-250.

1827 A
On the fossil remains of the mastodon
lately found in Ontario County, N. Y.
Amer. Jour. Sci. (1), xii, pp. 380-381.

1828 A
On the fossil tooth of an elephant
found near the shore of Lake Erie, and
on the skeleton of a mastodon lately
discovered on the Delaware and Hud-
son Canal.

Amer. Jour. Sci. (1), xiv, pp. 31-38.

Van Wijhe, J. W. 1882 A
Ueber das Visceralskelet und die
Nerven des Kopfes der Ganoiden und
von *Ceratodus*.

Niederländisches Archiv Zoologie, v, pp.
205-320, with pls. xv and xvi.

Besides the subjects of the title, this paper
treats of the "otic bones."

Vasseur, Gaston. 1874 A
Sur le pied de derrière de l'*Hyænodon*
parisiensis.

Comptes rend. Acad. Sci. Paris, lxxviii,
pp. 1446-1447.

- Vasseur, Gaston**—Continued. 1875 A
 Sur le cubitus de *Coryphodon oweni*.
 Bull. Soc. Géol., France (3), III, pp. 181-186,
 pl. III.
- Vetter, Benjamin.** 1881 A
 Die Fische aus dem lithographischen
 Schiefer im Dresdener Museum.
 Mittheil. k. min., geol., u. prähist. Mus.
 Dresden, Heft 4, pp. 1-viii, 1-118, with pls.
 1-III.
- 1885 A
 Ueber die Verwandtschaftsbeziehun-
 gen zwischen Dinosauriern und Vögeln.
 Festschrift naturw. Gesellsch. Isis, Dresden,
 Feler 50jährig. Bestehens, pp. 109-122.
- Vogt, Carl.** 1880 A
Archaeopteryx macrura, an interme-
 diate form between birds and reptiles.
 The Ibis (4), IV, pp. 434-456, with pl. XIII,
 and 4 figs. in the text.
- Voigt, Fr. S.** 1835 A
 Thier-Fährten in Hildburghäuser
 Sandsteine (*Palaeopithecus*).
 Neues Jahrb. Mineral., 1835, pp. 322-326.
- Vrolik, A. J.** 1873 A
 Ueber die Verknöcherung und die
 Knochen des Schädels der *Teleostei*.
 Niederländisches Archiv. Zoologie, I, pp.
 219-318, with pls. xviii-xxii.
 I. Synonymie der Schädelknochen bei den
Teleostei, pp. 221-230, with a table.
 II. Ueber die Verknöcherung des Teleos-
 tischädels, pp. 231-260.
 III. Die Knochen des Teleostischädels,
 pp. 261-290, with a table.
 IV. Die Verknöcherung des Schläfenbeins
 der Säugethiere, pp. 291-318.
 This paper also gives consideration to the
 "otic bones." In opposition to the views of
 Vrolik, see Van Wijhe, J. W., 1882 A.
- Wagner, Andreas.** 1851 A
 Beiträge zur Kenntniss der in den
 lithographischen Schiefen abgelager-
 ten urweltlichen Fische.
 Abhandl. k. bayer. Akad. Wissensch., math.-
 phys. Cl., VI, pp. 1-80, with pls. 1-IV.
- 1851 B
 Beschreibung einer neuen Art von
Ornithocephalus, nebst kritischer Ver-
 gleichung der in der k. paläontologi-
 schen Sammlung zu München aufge-
 stellten Arten aus dieser Gattung.
 Abhandl. k. bayer. Akad. Wissensch., math.-
 phys. Cl., VI, pp. 127-193, pls. v-vi.
- 1853 A
 Beschreibung einer fossilen Schild-
 kröte und etlicher anderer Reptilien-
- Wagner, Andreas**—Continued.
 überreste aus den lithographischen
 Schiefen und dem Grünsandsteine von
 Kelheim.
 Abhandl. k. bayer. Akad. Wissensch., math.-
 phys. Cl., VII, pp. 241-264, with pls. IV-VI.
 Describes *Platycheilus oberdorferi*, *Idiocheilus*,
 and *Homaeosaurus*.
- 1861 A
 On a new fossil reptile supposed to
 be furnished with feathers.
 Ann. and Mag. Nat. Hist. (3), IX, pp. 261-
 267 (1862).
 Translated from the Sitzungsber. Akad.
 Wissensch. München, 1861, p. 146.
- 1861 B
 Monographie der fossilen Fische aus
 den lithographischen Schiefen Bay-
 erns. Erste Abtheilung. Plakoiden
 und Pyknodonten.
 Abhandl. k. bayer. Akad. Wissensch., math.-
 phys. Cl., II, Abth., II, pp. 277-352, with pls. IV-VII.
- 1863 A
 Monographie der fossilen Fische aus
 den lithographischen Schiefen Bay-
 erns. Zweite Abtheilung.
 Abhandl. k. bayer. Akad. Wissensch., math.-
 phys. Cl., IX, pp. 613-748, with pls. II-VII.
 Also issued as reprint with pp. 43-138.
- Wagner, George.** 1898 A
 On some turtle remains from the
 Fort Pierre.
 Kansas Univ. Quarterly, VII, A, pp. 201-205,
 with 2 figs. in the text.
- 1899 A
 On *Tetracaulodon* (*Tetrabelodon*) *shep-
 ardii* Cope.
 Kansas Univ. Quarterly, VIII, A, pp. 99-103,
 with pls. XXIV, XXV.
- Wailles, B. L. C.** 1854 A
 Report on the agriculture and geology
 of Mississippi, embracing a sketch of
 the social and natural history of the
 State.
 Pp. i-xx; 1-371.
 Published by order of the legislature.
 Contains remarks on a few fossil vertebrates
 and a list, by Dr. Leidy, of those found in Missis-
 sippi.
- Walcott, C. D.** 1892 A
 Notes on the discovery of a vertebrate
 fauna in Silurian (Ordovician) strata.
 Bull. Geol. Soc. America, III, pp. 153-172,
 pls. 3-5.
 Describes *Dictyorhabdus priscus*, *Antraspis
 desiderata*, and *Eryptichius americanus*.
 See Neues Jahrb., Mineral., 1895, p. 162, for
 Otto Jaekel's review; Amer. Naturalist, XXVII,
 p. 268, for notice by Cope.

Walcott, C. D.—Continued. 1900 A
Correspondence relating to collection of vertebrate fossils made by the late Prof. O. C. Marsh.

Science (2), xi, pp. 22-23.

This letter, directed to Prof. S. P. Langley, contains a partial list of the types of species described by Professor Marsh, and now in the National Museum.

Walker, S. T. 1883 A
On the origin of the fossil bones discovered in the vicinity of Tise's Ford, Florida.

Proc. U. S. Nat. Mus., vi, pp. 427-428.

Walter, Ferdinand. 1887 A
Das Visceralskelet und seine Muskulatur bei den einheimischen Amphibien und Reptilien.

Jenaische Zeitschr. Naturwiss., xxi (xiv), pp. 1-45, with pls. 1-iv.

Wanner, Atreus. 1889 A
The discovery of fossil tracks, algae, etc., in the Triassic of York County, Pa.

Ann. Report Geol. Surv. Penn., for 1887, pp. 21-27, with pls. iv-xiii.

No names are given to the tracks figured.

1892 A
Fossil tracks in the Trias of York County, Pa.

Proc. Amer. Assoc. Adv. Sci., 39th meeting, Washington, 1891, p. 286. A brief abstract.

Ward, Henry A. 1864 A
Notice of the *Megatherium cuvieri*, the giant fossil ground-sloth of South America. Presented to the University of Rochester by Hiram Sibley, esq.

Pp. 1-84, with 1 large pl.

Has, in addition, a brief description of *Megalonix jeffersoni*.

Ward, Henry L. 1887 A
The pelvis of the dugong.

Science, ix, p. 586, with 1 woodcut.

Ward, John. 1890 A
The geological features of the North Staffordshire coal fields, their organic remains, their range and distribution; with a catalogue of the fossils of the Carboniferous system of North Staffordshire.

Trans. North Staffordshire Mining and Mechan. Engineers, x, pp. 1-189, with index, pp. 1-ix, and pls. 1-ix.

Warren, John C. 1846 A
On the osteology and dentition of some North American mastodons.

Ann. and Mag. Nat. Hist. (1), xvii, pp. 145-150.

A letter addressed to Prof. R. Owen and sent by him to the editors.

1850 A
On the *Mastodon angustidens*.

Proc. Amer. Assoc. Adv. Sci., 2d meeting, 1849, Cambridge, Mass., pp. 93-94.

1852 A
[Remarks on a supposed tooth of *Mastodon angustidens*.]

Proc. Boston Soc. Nat. Hist., iv, pp. 129-131.

1852 B
[Remarks on the supposed food of *Mastodon giganteus*.]

Proc. Boston Soc. Nat. Hist., iv, p. 154.

1852 C
The *Mastodon giganteus* of North America.

Pp. 1-viii; 1-219, 4to, with vignette and pls. i-xxvi and 1 large additional pl. Boston, 1852, John Wilson & Son.

A second edition of this work was published in 1855.

1854 A
Remarks on some fossil impressions in the sandstone rocks of Connecticut River.

8vo; pp. 1-54, with 1 pl. and 2 text figs. Boston, 1854.

A popular account of the impressions, foot-marks, etc., of the sandstones referred to.

1855 A
Supernumerary tooth in *Mastodon giganteus*.

Amer. Jour. Sci. (2), xix, pp. 349-353.

1855 B
The *Mastodon giganteus* of North America.

2d edition, 260 pp., 4to, with 31 pls.: Boston, 1855.

Contains 3 new plates and some additions to text of the first edition, which appeared in 1852.

1855 C
Supernumerary tooth in jaw of *Mastodon*.

Proc. Boston Soc. Nat. Hist., v, pp. 144-150.

1855 D
Brief history of the zeuglodon.

Proc. Boston Soc. Nat. Hist., v, pp. 91-92.

- Warren, John C.**—Continued. 1856 A
New remarkable gigantic fossils and footmarks.
Proc. Boston Soc. Nat. Hist., v, pp. 296-306.
- Waterhouse, G. R.** 1838 A
On the skull and dentition of the American badger (*Meles labradoria*).
Proc. Zool. Soc. Lond., 1838, pt. vi, pp. 153-154.
- 1839 A
On the skulls and dentition of the *Carnivora*.
Proc. Zool. Soc. Lond., 1839, pt. vii, pp. 135-137.
- Weber, Max.** 1886 A
Studien über Säugethiere. Ein Beitrag zur Frage nach dem Ursprung der Cetaceen.
Jena, 1886, 8vo, pp. 1-vi; 1-252, with pls. 1-iv.
Reviewed by M. Schlosser in Archiv f. Anthropol., xviii, pp. 143-146.
- 1887 A
Über die cetoide Natur der *Promammalia*.
Anatom. Anzeiger, ii, pp. 42-55.
- 1888 A
Anatomisches über Cetaceen. I. Ueber den Carpus der Cetaceen; II. Ueber den Magen der Cetaceen.
Morpholog. Jahrbuch, xlii, pp. 616-653, with pls. xxvii-xxviii, and 2 woodcuts.
- 1893 A
Bemerkungen über den Ursprung der Haare und über Schuppen bei Säugethiern.
Anatom. Anzeiger, viii, pp. 413-423.
- 1893 B
Zur Frage nach dem Ursprung der Schuppen der Säugethiere.
Anatom. Anzeiger, viii, pp. 649-651.
- 1898 A
Studien über Säugethiere.
Pp. 1-iv, 1-152, with pls. 1-iv. 8vo, Jena, 1898.
Part II of this work is entitled "Anatomische Bemerkungen über Elephas," pp. 135-152, pl. iv.
- Weil, Richard.** 1899 A
Development of the ossicula audita in the opossum.
Ann. N. Y. Acad. Sci., xii, pp. 103-107, with pls. ii, iii.
- Weithofer, Anton.** 1888 A
Beiträge zur Kenntniss der Fauna von Piskermi bei Athen.
Beiträge Paläontologie Oesterreich-Ungarns (Mojsisovics und Neumayer), vi, pp. 225-292, with pls. x-xix.
Reviewed by M. Schlosser in Archiv f. Anthropol. xix, pp. 146-148.
- 1888 B
Einige Bemerkungen über den Carpus der Proboscidiern.
Morpholog. Jahrbuch, 1888, pp. 507-516.
- 1890 A
Die fossilen Proboscidiern des Arnethales in Toskana.
Beiträge Paläontologie Oesterreich-Ungarns (Mojsisovics und Neumayer), viii, pp. 103-240, with pls. 1-xv.
Review in Archiv f. Anthropol., xx, pp. 116-118.
- 1893 A
Proboscidiani fossili di Valdarno in Toscano.
Memoire per servire alla descrizione della carta geologica d'Italia, i^{ra}, pt. 2, pp. 1-152, with pls. 1-xv.
- Wellburn, Edgar D.** 1900 A
On the genus *Megalichthys*, Agassiz; its history, systematic position, and structure.
Proc. Yorkshire Geol. and Polytech. Soc. (2), xiv, pp. 52-71, with pls. xiii-xvii, xix.
- 1900 B
On *Rhadinichthys monensis*, Egerton, and its distribution in the Yorkshire coal field.
Geol. Magazine (4), vii, pp. 260-263, with 1 fig. in the text.
- Weller, Stuart.** 1899 A
A peculiar Devonian deposit in north-eastern Illinois.
Jour. Geology, vii, pp. 483-488, with 3 text figs.
Reports occurrence of *Ptychodus calceolus*, *Diplodus prius*, and *D. striatus*.
- West, H. H.** 1877 A
Wonderful discoveries in the Sandstone rocks of Colorado.
Western Review of Science and Industry, i, pp. 564-565 (Kansas City, Mo.).
A description of the finding of some huge reptilian bones near Morrison, Colo. Copied from the Colorado Springs Gazette.
- Weyhe, —.** 1875 A
Uebersicht der Säugethiere nach ihren Beckenformen.
Zeitschr. gesamm. Naturwiss., xiv (n. F. xi), 1875, pp. 97-123.

- Wheatley, Charles M.** 1861 A
Remarks on the Mesozoic red sandstone of the Atlantic slope, and notice of the discovery of a bone bed therein, at Phoenixville, Pa.
Amer. Jour. Sci. (2), xxxii, pp. 41-48.
- 1871 A
Notice of the discovery of a cave in eastern Pennsylvania, containing remains of post-Pliocene fossils, including those of mastodon, tapir, megalonyx, mylodon, etc.
Amer. Jour. Sci. (3), i, pp. 235-237, with 2 figs. showing the location of the cave.
- 1871 B
The bone cave of eastern Pennsylvania.
Amer. Jour. Sci. (3), i, pp. 384-385.
Contains a list of the species found up to that time in Port Kennedy bone cave.
- Wheeler, William.** 1878 A
A fossil tusk found in Franklin County, [Kansas].
Trans. Kansas Acad. Sci., vi, p. 11.
Supposed to be mastodon.
- Wheeler, William Morton.** 1899 A
George Baur's life and writings.
Amer. Naturalist, xxxiii, pp. 15-30, with portrait.
This paper ends with a list of Dr. Baur's scientific writings, 144 in number.
- Whipple, S. H.** 1844 A
Notice of bones of mastodon.
Proc. Amer. Philos. Soc., iv, pp. 35-36.
A letter accompanying a collection of mastodon bones from Benton County, Mo.
- White, C. A.** 1883 A
On the commingling of ancient faunal and modern floral types in the Laramie group.
Amer. Jour. Sci. (3), xxvi, pp. 120-123.
- 1887 A
On the interrelations of contemporaneous fossil faunas and floras.
Amer. Jour. Sci. (3), xxxiii, pp. 364-374.
- White, Philip J.** 1895 A
The existence of skeletal elements between the mandibular and hyoid arches in *Hexanchus* and *Lemargus*.
Anatom. Anzeiger, xi, pp. 57-60, with 8 figs.
- Whiteaves, J. F.** 1880 A
On a new species of *Pterichthys*, allied to *Bothriolepis ornata*, from the Devonian rocks of the north side of the Baie des Chaleurs.
Amer. Jour. Sci. (3), xx, 132-136.
- Whiteaves, J. F.**—Continued. 1881 A
On some remarkable fossil fishes from the Devonian rocks of Scaumenac Bay, Province of Quebec.
Amer. Jour. Sci. (3), xxi, pp. 494-496.
Also in Ann. and Mag. Nat. Hist. (5), viii, 159-162.
Diplacanthus striatulus *Phaneropleuron curtum*, *Eusthenopteron foordii*, *Glyptolepis microlepidotus*, *Glyptolepis* —, and *Chetrolepis canadensis* are described.
- 1881 B
On a new species of *Pterichthys*, allied to *Bothriolepis ornata* Eichwald, from the Devonian rocks of the north side of the Baie des Chaleurs.
Canadian Naturalist (2), x, pp. 23-27.
- 1881 C
On some remarkable fossil fishes from the Devonian rocks of Scaumenac Bay, P. Q., with descriptions of a new genus and three new species.
Canadian Naturalist (2), x, pp. 27-35.
- 1881 D
Description of a new species of *Psammodontus* from the Carboniferous rocks of the island of Cape Breton.
Canadian Naturalist (3), x, p. 36.
Describes *Psammodontus bretonensis*.
- 1881 E
On some fossil fishes, crustacea, and mollusca from the Devonian rocks at Campbellton, N. B., with descriptions of five new species.
Canadian Naturalist (2), x, pp. 98-101, with 1 fig. in the text.
Describes *Cocosteus acadicus*, *Cephalaspis campbelltonensis*, *Ctenacanthus latispinozus* and *Homacanthus* sp. indet.
- 1883 A
Recent discoveries of fossil fishes in the Devonian rocks of Canada.
Proc. Amer. Assoc. Adv. Sci., 31st meeting, Montreal, 1882, pp. 353-356.
- 1883 B
Recent discoveries of fossil fishes in the Devonian rocks of Canada.
Amer. Naturalist, xvii, pp. 158-164.
- 1887 A
Illustrations of the fossil fishes of the Devonian rocks of Canada.
Trans. Roy. Soc. Canada, iv, sec. iv, 1886, pp. 101-110; pls. vi-x.
- 1889 A
Illustrations of the fossil fishes of the Devonian rocks of Canada. Part II.
Trans. Roy. Soc. Canada, vi, sec. iv, 1888, pp. 77-96; pls. v-x.

Whiteaves, J. F.—Continued. 1889 B

On some fossils from the Hamilton formation of Canada, with a list of the species at present known from that formation and province. 3. The fossils of the Triassic rocks of British Columbia. 4. On some Cretaceous fossils from British Columbia, the Northwest Territory, and Manitoba.

Geol. and Nat. Hist. Survey of Canada. Contrib. to Canad. Palæont. 1, part II, art. 2, pp. 91-196, with pls. xii-xxvi.

1892 A

The fossils of the Devonian rocks of the islands, shores, or immediate vicinity of Lakes Manitoba and Winnipegosis.

Geol. Surv. Canada. Contrib. to Canad. Palæont., 1, part IV, art. 6, pp. 255-359, with pls. xxxiii-xlvii.

On pages 353 and 354, pls. xlvii and xlviii, certain fossil fishes are described and figured.

1898 A

Note on a fish tooth from the Upper Arisaig series of Nova Scotia.

Canadian Record of Science, vii, pp. 461-462, with 1 text fig.

Also in Report Brit. Assoc. Adv. Sci. for 1897, Toronto meeting, pp. 656-657.

Describes *Dendrodus arisaigensis* from rocks supposed to be of Silurian, possibly Devonian, age.

1898 B

On some additional or imperfectly understood fossils from the Hamilton formation of Ontario, with a revised list of the species therefrom.

Geol. Surv. Canada. Contrib. to Canad. Palæont., 1, pp. 361-436, with pls. xlviii-l.

1899 A

The Devonian system in Canada.

Science (2), x, pp. 402-412; 430-438.

Also in Proc. Amer. Assoc. Adv. Sci., xlviii (Columbus), pp. 198-223.

Whitfield, R. P.**1888 A**

Evidence confirmatory of *Mastodon obscurus* Leidy as an American species.

Proc. Amer. Assoc. Adv. Sci., 38th meeting, New York, 1887, pp. 252-258.

1890 A

Observations on a fossil fish from the Eocene beds of Wyoming.

Bull. Amer. Mus. Nat. Hist., III, pp. 117-120, with pl. iv.

1891 A

Mastodon remains on New York Island.

Science, xviii, p. 342.

Whitfield, R. P.—Continued. 1900 A

Note on the principal type specimen of *Mosasaurus maximus* Cope, with illustrations.

Bull. Amer. Mus. Nat. Hist., xlii, pp. 25-29, with pls. iv, v.

Whitfield, R. P. and Hovey, E. O. 1900 A

A catalogue of the types and figured specimens in the palæontological collection of the geological department, American Museum of Natural History.

Bull. Amer. Mus. Nat. Hist., xl, pp. 190-356.

On page 348 there is noted the presence of five types of fossil fishes in the museum.

Whitney, J. D.**1867 A**

Notice of a human skull recently taken from a shaft near Angels, Calaveras County.

Amer. Jour. Sci. (2), xliii, pp. 265-267.

Taken from Proc. California Acad. Nat. Sci., III, pp. 277.

1879 A

The animal remains, not human, of the auriferous gravel series.

Mem. Mus. Comp. Zool., vi, pp. 239-258.

This forms sec. iv of chap. III of Whitney's "The auriferous gravels of the Sierra Nevada of California."

The descriptions of the species have all been published by Dr. Leidy elsewhere, but those of the equine animals are reproduced.

Whittlesey, Charles.**1848 A**

Notes upon the drift and alluvium of Ohio and the West.

Amer. Jour. Sci. (2), v, pp. 205-217.

1869 A

On the evidences of the antiquity of man in the United States.

Proc. Amer. Assoc. Adv. Sci., 17th meeting, Chicago, 1868, pp. 268-288.

Wiedersheim, Robert.**1876 A**

Die ältesten Formen des Carpus und Tarsus der heutigen Amphibien.

Morpholog. Jahrbuch, II, pp. 421-434, with pl. xxix.

See also "Nachträgliche Bemerkungen" in vol. III, pp. 152-154, with 5 figs.

1877 A

Das Kopfskelet der Urodelen.

Morpholog. Jahrbuch, III, pp. 352-448, with pls. xix-xxiii and 1 woodcut; pp. 459-548, with pls. xxiv-xxvii and 5 woodcuts.

1878 A

Labyrinthodon ritimeyeri. Ein Beitrag zur Anatomie von Gesamtskelet und Gehirn der triassischen Labyrinthodonten.

Abhandl. schweizer. paläontolog. Gesellsch., v, pp. 1-56, with 8 pls.

Wiedersheim, Robert—Cont'd. 1880 A
Das Skelet von *Pleurodeles waltii*.
Jenaische Zeitschr. Naturwiss., xiv (vii), pp.
1-38, with pl. 1.

1880 B
Das Skelet und Nervensystem von
Lepidosiren annectens (*Protopterus*).
Jenaische Zeitschr. Naturwiss., xiv (vii), pp.
156-192, with pls. vii, viii.

1881 A
Zur Paläontologie Nord-Amerikas.
Biolog. Centralbl., i, pp. 359-372.

1884 A
Die Stammesentwicklung der Vögel.
Biolog. Centralbl., iii, pp. 654-668.

1889 A
Über die Entwicklung des Schulter-
und Beckengürtels.
Anatom. Anzeiger, iv, pp. 428-441.

1890 A
Weitere Mitteilungen über die Ent-
wicklungsgeschichte des Schulter- und
Beckengürtels.
Anatom. Anzeiger, v, pp. 18-26.

Wiegmann, Fr. Aug. 1838 A
Ueber das Gebiss des Walrosses.
Archiv Naturgesch., iv, Bd. i, pp. 113-130.

Wieland, George R. 1896 A
Archelon ichthyos: a new gigantic
cryptodire testudinate from the Fort
Pierre Cretaceous of South Dakota.
Amer. Jour. Sci. (4), ii, pp. 399-412, with pl.
vi and 19 figs. in the text.
Describes under above name the carapace
and other bones of a new turtle.

1898 A
The Protostegan plastron.
Amer. Jour. Sci. (4), v, pp. 15-20, with pl. ii
and 2 figs. in the text.

1899 A
The terminology of vertebral centra.
Amer. Jour. Sci. (4), viii, pp. 163-164.

1900 A
The skull, pelvis, and probable rela-
tionships of the huge turtles of the
genus *Archelon* from the Fort Pierre
Cretaceous of South Dakota.
Amer. Jour. Sci. (4), ix, pp. 237-251, with
pl. ii and 6 text figs.
Noticed by Osborn, Science, xii, 1900, p. 2.

1900 B
Some observations on certain well-
marked stages in the evolution of the
testudinate humerus.
Amer. Jour. Sci. (4), ix, pp. 413-424, with 23
text. figs.

Wilckens, M. 1884 A
Uebersicht über die Forschungen
auf dem Gebiete der Paläontologie der
Haustiere. 1. Die pferdeartigen Tiere
des Tertiärs.

Biolog. Centralbl., iv, pp. 137-154; 183-188.

1884 B
Uebersicht über die Forschungen
auf dem Gebiete der Paläontologie der
Haustiere. 2. Die Pferde des Diluviums.
Biolog. Centralbl., iv, pp. 294-310; 327-344.
Contains Lydekker's list of Pliocene and
recent *Equidae*.

1885 A
André Sanson, Sur les Equidés quar-
ternaires.
Biolog. Centralbl., v, pp. 184-187.

1885 B
Uebersicht über die Forschungen
auf dem Gebiete der Paläontologie der
Haustiere. 5. Die schweinartigen Tiere
(Suiden).
Biolog. Centralbl., v, pp. 208-222; 233-241;
263-270; 295-308; 332.

1885 C
Uebersicht über die Forschungen
auf dem Gebiete der Paläontologie der
Haustiere. 6. Die Kamelartigen Tiere
(Cameliden).
Biolog. Centralbl., v, pp. 418-424.

1885 D
Uebersicht über die Forschungen auf
dem Gebiete der Paläontologie der
Haustiere. 7. Die hundartigen Tiere
(Caniden) des Tertiärs.
Biolog. Centralbl., v, pp. 459-468; 489-499;
518-529.

1885 E
Uebersicht über die Forschungen auf
dem Gebiete der Paläontologie der
Haustiere. 3. Die Abstammung des
Rindes und die tertiären Formen des-
selben.

Biolog. Centralbl., iv, pp. 749-766.
Reviews of Wilckens's various papers by M.
Schlosser in Archiv f. Anthropol., xvii, pp. 187-
191; xviii, pp. 146-150.

1888 A
Beitrag zur Kenntniss des Pferdege-
bisses mit Rücksicht auf die fossilen
Equiden von Maragha in Persien.
Nova Acta Caes. Akad., Leop.-Car., iii, pp.
257-284, with pls. ix-xvi.

Wilder, B. G. 1871 A
Mastodon remains in central New
York.
Amer. Jour. Sci. (3), ii, p. 58.
A brief note.

- Wilder, B. G.**—Continued. 1880 A
Some recent American papers in comparative anatomy.
Science (John Michels, editor), 1, pp. 322-323.
- Willdermuth, H. A.** 1877 A
Der feinere Bau der lufthaltigen Vogelknochen nebst Beiträgen zur Kenntniss ihrer Entwicklung.
Jenaische Zeitschr. Naturwiss., xi (o. s.), pp. 537-550, with pl. xxxvi.
- Willemoes-Suhm, Rudolph.** 1869 A
Ueber *Celacanthus* und einige verwandte Gattungen.
Palaeontographica, xvii, pp. 73-88, with pls. x-xi.
- Williams, Henry S.** 1882 A
Note on some fish-remains from the Upper Devonian rocks in New York State.
Proc. Amer. Assoc. Adv. Sci., 30th meeting, Cincinnati, 1881, pp. 192-198.
Describes *Dipterus thacensis*.
- 1887 A
On the fossil faunas of the Upper Devonian, the Genesee section, New York.
Bull. U. S. Geol. Surv. No. 41, pp. 1-104, with pls. 1-iv.
- 1891 A
On the plates of *Holonema rugosa*.
Proc. Amer. Assoc. Adv. Sci., 39th meeting, Indianapolis, 1890, p. 337.
- 1892 A
The scope of palaeontology and its value to geologists.
Proc. Amer. Assoc. Adv. Sci., 41st meeting, Rochester, 1892, pp. 149-170.
Vice-presidential address before Amer. Assoc. Adv. Sci., 1892.
- 1893 A
On the ventral plates of the carapace of the genus *Holonema* of Newberry.
Amer. Jour. Sci. (3), xlv, 285-288, with figs. in the text.
- Williams, Herbert Upham.** 1886 A
Notes on the fossil fishes of the Genesee and Portage black shales.
Bull. Buffalo Soc. Nat. Sci., v, pp. 61-84, with 1 pl.
- Williamson, W. C.** 1837 A
On the affinity of some fossil scales of fish from the Lancashire Coal measures with those of the recent *Salmonidae*.
Lond. and Edinb. Philos. Mag. and Jour. Sci. (3), xi, pp. 300-301, with pl. ii.
The scales here described and figured are now referred to *Rhizodopsis sauroidea*.
- Williamson, W. C.**—Continued. 1849 A
On the microscopic structure of the scales and dermal teeth of some Ganoid and Placoid fishes.
Philos. Trans. Roy. Soc. Lond., 1849, pp. 435-475; pls. 40-43.
- Williston, S. W.** 1878 A
American Jurassic dinosaurs.
Trans. Kansas Acad. Sci., vi, pp. 42-46.
- 1890 A
Structure of the plesiosaurian skull.
Science, xvi, p. 262.
- 1890 B
Structure of the plesiosaurian skull.
Science, xvi, p. 290.
- 1890 C
Note on the pelvis of *Cumnoria* (*Camplosaurus*.)
Amer. Naturalist, xxiv, pp. 472-473.
- 1890 D
A new plesiosaur from the Niobrara Cretaceous of Kansas.
Trans. Kansas Acad. Sci., xii, pp. 174-178, with 2 figs. in the text.
Describes and figures *Cimoliosaurus* (*Elasmosaurus*?) *snovi*.
Noticed by Cope, Amer. Naturalist, xxv, p. 668.
- 1891 A
Kansas mosasaurs.
Science, xviii, p. 345.
- 1891 B
The skull and hind extremity of *Pteranodon*.
Amer. Naturalist, xxv, pp. 1124-1126.
- 1892 A
Kansas pterodactyls. Part I.
Kansas Univ. Quarterly, i, pp. 1-18, pl. i.
Contains list of species, with description of the osteology of *Pteranodon* and *Nyctodactylus*.
A brief abstract of this paper is found in Amer. Naturalist, xxvii, p. 37.
- 1893 A
An interesting food habit of the plesiosaurs.
Trans. Kansas Acad. Sci., xlii, pp. 121-122, with plate.
Refers to the occurrence of pebbles in the stomachs of plesiosaurs.
- 1893 B
Kansas pterodactyls. Part II.
Kansas Univ. Quarterly, ii, pp. 79-81, with 1 fig. in the text.
- 1893 C
Kansas mosasaurs. Part II. Restoration of *Clidastes*.
Kansas Univ. Quarterly, ii, pp. 83-84, with pl. iii.

Williston, S. W.—Continued. 1894 A
A food habit of the plesiosaurs.
Amer. Naturalist, xxviii, p. 50.
Extract from Trans. Kansas Acad. Sci., xlii,
p. 121.

1894 B
Vertebrate remains from the lower-
most Cretaceous.

Kansas Univ. Quarterly, iii, pp. 1-4, with
pl. i.

1894 C
Restoration of *Platygonus*.
Kansas Univ. Quarterly, iii, pp. 23-29, with
pls. vii, viii, and 7 text figs.
Notice of, by M. Schlosser, in Archiv f.
Anthrop., xxiv, p. 171.

1894 D
A new turtle from the Benton Cre-
taceous.

Kansas Univ. Quarterly, iii, pp. 5-18, with
pls. ii-iv, with 9 text figs.
Describes as belonging to new family, genus,
and species, *Dermatohelys lowii*.

1894 E
Restoration of *Aceratherium fossiger*
Cope.
Kansas Univ. Quarterly, ii, pp. 289-290, pl.
viii.

1894 F
A new Dicotyline mammal from the
Kansas Pliocene.
Science, xxiii, p. 164.
Describes *Dicotyles leptorhinus* Williston.

1895 A
New or little-known extinct verte-
brates.
Kansas Univ. Quarterly, iii, pp. 165-176.
Abstract by M. Schlosser in Archiv f.
Anthrop., xxv, p. 183.

1895 B
Note on the mandible of *Ornithostoma*.
Kansas Univ. Quarterly, iv, p. 61.

1896 A
On the dermal coverings of *Hespero-*
ornis.
Kansas Univ. Quarterly, v, pp. 53-54, with
pl. ii.

1896 B
On the skull of *Ornithostoma*.
Kansas Univ. Quarterly, iv, pp. 196-197, with
pl. i.
Ornithostoma is adopted instead of *Pterano-*
don Marsh.

1897 A
Restoration of *Ornithostoma* (*Pter-*
anodon).
Kansas Univ. Quarterly, vi, pp. 35-51, with
pl. ii, and 4 figs. in the text.

Williston, S. W.—Continued. 1897 B
Notice of some vertebrate remains
from the Kansas Permian.
Kansas Univ. Quarterly, vi, pp. 53-56, with
2 figs. in the text.
See also Science (2), v, p. 396, and Trans.
Kansas Acad. Sci., xv, pp. 120-122.

1897 C
A new plesiosaur from the Kansas
Comanche Cretaceous.
Kansas Univ. Quarterly, vi, p. 57.
Description of *Plesiosaurus gouldii* n. sp.

1897 D
Brachysaurus, a new genus of moe-
saurs.
Kansas Univ. Quarterly, vi, pp. 95-98, with
pl. viii.
Description of *Brachysaurus overtoni* gen. et
sp. nov.

1897 E
On the extremities of *Tylosaurus*.
Kansas Univ. Quarterly, vi, pp. 99-102, with
pls. ix-xii, and 1 fig. in the text.
One of the plates shows the scaled condition
of the skin of *Tylosaurus*.

1897 F
Range and distribution of the moe-
saurs, with remarks on synonymy.
Kansas Univ. Quarterly, vi, pp. 177-185,
with pl. xx.

1897 G
A new labyrinthodont from the Kan-
sas Carboniferous.
Kansas Univ. Quarterly, vi, pp. 209-210,
with pl. xxi.

1897 H
The Kansas Niobrara Cretaceous.
Univ. Geol. Surv. Kansas, ii, pp. 235-246.
Contains a brief account of the genera of
vertebrates found in this group of deposits.

1897 I
The Pleistocene of Kansas.
Univ. Geol. Surv. Kansas, ii, pp. 299-308,
with pls.

1897 J
Restoration of Kansas Mosaurs.
Kansas Univ. Quarterly, vi, A, pp. 107-110,
with pl. xiii.

1898 A
Restoration of Kansas Cretaceous
animals.
Kansas Univ. Quarterly, vii.
Frontispiece restoration of *Clidastes* is given.

1898 B
Birds.
Univ. Geol. Surv. Kansas, iv, pp. 43-53, with
pls. v-viii.
This is a synopsis of the fossil birds of
Kansas.

- Williston, S. W.**—Continued. 1898 C
Dinosaurs.
 Univ. Geol. Surv. Kansas, iv, pp. 67-70,
 with pl. ix.
 A brief exposition of the characters of the
 group and a plate of *Claosaurus annectens*, to
 illustrate the structure of the Kansan species,
C. agilis.
- 1898 D
Crocodiles.
 Univ. Geol. Surv. Kansas, iv, pp. 75-78,
 with 2 figs. in the text.
- 1898 E
Mosasaurs.
 Univ. Geol. Surv. Kansas, iv, pp. 83-221,
 with pls. x-lxxii and 5 figs. in the text.
- 1898 F
The sacrum of *Morasaurus*.
 Kansas Univ. Quarterly, vii, pp. 173-175,
 with 2 figs. in the text.
- 1898 G
Miocene Edentates.
 Science (2), viii, p. 132.
 Shows that Cope's *Caryoderma novianum* is
 a *Testudo*, possibly *T. undata* Cope.
- 1898 H
Editorial notes.
 Kansas Univ. Quarterly, vii, A, p. 236.
 Note on nuchal fringe and scales of *Plate-*
carpus.
- 1898 I
The Pleistocene of Kansas.
 Trans. Kansas Acad. Sci., xv, pp. 90-94.
 Presents an annotated list of the Pleistocene
 vertebrates found in Kansas. A reprint of
 Williston, S. W., 1897 I.
- 1898 J
**Notice of some vertebrate remains
 from the Kansas Permian.**
 Trans. Kansas Acad. Sci., xv, pp. 120-122.
- 1898 K
Saber-toothed cats.
 Pop. Sci. Monthly, liii, pp. 348-351, with 1
 text-fig.
- 1899 A
**Some additional characters of the
 mosasaurs. Contributions from the
 palæontological laboratory, No. 42.**
 Kansas Univ. Quarterly, viii, A, pp. 39-41.
 Describes the episternum and nuchal fringe
 in *Platecarpus*. Also shows that the food is
 principally fishes.
- 1899 B
A new genus of fishes from the Niobrara Cretaceous.
 Kansas Univ. Quarterly, viii, pp. 113-115,
 with pl. xxvi.

- Williston, S. W.**—Continued 1899 C
The red-beds of Kansas.
 Science (2), ix, p. 221.
 Records the finding of *Eryops megacephalus*
 in the above beds.
- 1899 D
**A new species of *Sagenodus* from the
 Kansas Coal-measures.**
 Kansas Univ. Quarterly, viii, pp. 175-181,
 with pls. xxviii, xxxv-xxxvii.
- 1899 E
**Notes on the coraco-scapula of
Eryops Cope.**
 Kansas Univ. Quarterly, viii, pp. 185-186,
 with pls. xxvii, xxix, xxx.
- 1900 A
**Some fish-teeth from the Kansas
 Cretaceous.**
 Kansas Univ. Quarterly, ix, pp. 27-42, with
 pls. vi-xiv.
- 1900 B
Cretaceous fishes [of Kansas]. Sela-
chians and Pycnodonts.
 Univ. Geol. Surv. Kansas, vi, pp. 237-256,
 with pls. xxiv-xxxii.
 This is a reprint of the preceding paper.
- Williston, S. W., and Case, E. C.** 1892 A
Kansas mosasaurs.
 Kansas Univ. Quarterly, i, pp. 15-32, with
 pls. ii-vi.
 Gives list of species and describes the osteo-
 logy of *Clidastes velox* and *C. westii* n. sp.
- 1898 A
Turtles. Introduction, and *Desmato-*
***lochelys*, by S. W. Williston. *Toxochelys*,**
by E. C. Case.
 Univ. Geol. Surv. Kansas, iv, pp. 349-387,
 with pls. lxxiii-lxxxiv, with 1 series of text
 figs.
- Willett, Henry.**
 See **Etheridge and Willett.**
- Wilson, J. T., and Hill, J. P.** 1897 A
**Observations upon the development
 and succession of the teeth in *Perameles*,**
together with a contribution to the dis-
cussion of the homologies of the teeth
in marsupial animals.
 Quart. Jour. Micros. Sci. (2), xxxix, pp. 427-
 588, with pls. xxv-xxxii.
- Wilson, Thomas.** 1892 A
Man and the *Myiodon*.
 Amer. Naturalist, xxvi, pp. 623-631.
 Presents results of chemical analysis of
 bones of man and *Myiodon*, found together.

Winchell, Alex.

1863 A

Description of elephantine molars in the museum of the University of Michigan.

Canadian Naturalist, 1863, viii, pp. 398-400.

1864 A

Notice of the remains of a mastodon recently discovered in Michigan.

Amer. Jour. Sci. (2), xxxviii, pp. 223-224.

See also Canadian Naturalist, 1893, p. 398.

Winckler, T. C.

1869 A

Des tortues fossiles conservées dans le Musée Teyler et dans quelques autres musées.

Arch. Mus. Teyler, ii, pp. i-ii; 1-151, with pls. i-xxxiii.

1871 A

Mémoire sur le *Oelucanthus harlemensis*.

Arch. Mus. Teyler, iii, pp. 101-116, with pl. iv.

Notice and review of, by W. D[awkins] in Geol. Magazine, 1872, pp. 31-32.

1873 A

Le *Plesiosaurus dolichodeirus* Conyb.

Arch. Mus. Teyler, iii, pp. 219-233, with pl. vi, and 10 figs. in the text.

1874 A

Le *Pterodactylus kochii* Wagn. du Musée Teyler.

Archiv. Mus. Teyler, iii, pp. 377-387, with pl. vii.

1874 B

Mémoire sur des dents de poissons du terrain bruxellien.

Arch. Mus. Teyler, iii, pp. 296-304, with pl. vii.

Windle, B. C. A., and Humphreys, John.

1887 A

On man's lost incisors.

Report Brit. Assoc. Adv. Sci., 56th meeting, Birmingham, 1886, pp. 688-691.

Abstract; full paper in Jour. Anat. and Physiol., xxi, p. 84.

Winge, Herluf.

1888 A

Jordfundne og nulevende Gnavere (*Rodentia*) fra Lagoa, Minas Geraes, Brasilien.

E Museo Lundii, i, Art. iii, pp. 1-200, with pls. i-viii.

Abstract of, by M. Schlosser, in Archiv f. Anthrop., xix, pp. 89-90.

1893 A

Jordfundne og nulevende Flagermus (*Chiroptera*) fra Lagoa Santa, Minas

Winge, Herluf—Continued.

Geraes, Brasilien. Med Udsigt over Flagermusenes indbyrdes Slægtskab.

E Museo Lundii, ii, pp. 1-65, with pls. 1, ii. Kjöbenhavn, 1893.

Abstract of, by M. Schlosser, in Archiv f. Anthrop., xxiv, pp. 142-143.

1893 B

Chauves-souris fossiles et vivantes de Lagoa Santa, Minas Geraes, Brésil.

E Museo Lundii, ii, pp. 67-92.

1893 C

Jordfundne og nulevende Pungdyr (*Mareupialia*) fra Lagoa Santa, Minas Geraes, Brasilien. Med Udsigt over Pungdyrenes Slægtskab.

E Museo Lundii, ii, pt. ii, pp. 1-132, with pls. i-iv.

Abstract of, by M. Schlosser, in Archiv f. Anthrop., xxiv, pp. 143-145.

1895 A

Jordfundne og nulevende Aber (*Primates*) fra Lagoa Santa, Minas Geraes, Brasilien. Med Udsigt over Abernes indbyrdes Slægtskab.

E Museo Lundii, ii, pt. iii, pp. 1-45, with pls. i-ii.

Abstract of, by M. Schlosser, in Archiv f. Anthrop., xxv, pp. 238-239.

1895 B

Jordfundne og nulevende Rovdyr (*Carnivora*) fra Lagoa Santa, Minas Geraes, Brasilien. Med Udsigt over Rovdyrenes indbyrdes Slægtskab.

E Museo Lundii, ii, pt. iv, pp. 1-103, with pls. i-viii. Kjöbenhavn, 1895.

Notice of this paper by M. Schlosser in Neues Jahrb. Mineral., 1899, ii, pp. 144-147, and in Archiv f. Anthrop., xxv, pp. 239-241.

Winslow, C. F.

1857 A

Letter on finding human remains and those of elephant and mastodon in California.

Proc. Boston Soc. Nat. Hist., vi, p. 278.

1868 A

On human remains along with those of the mastodon in the drift of California.

Amer. Jour. Sci. (2), xlii, pp. 407-408.

Taken from Proc. Boston Soc. Nat. Hist., vi, 1867, p. 278.

Wislizenus, A.

1858 A

Was man contemporaneous with the mastodon?

Trans. Acad. Sci. St. Louis, i, pp. 168-171.

Wistar, Caspar. 1799 A

A description of the bones deposited by the president in the museum of the society, and represented in the annexed plates.

Trans. Amer. Philos. Soc., iv, pp. 526-531, with 2 pls.

Description of bones of *Megalonyx* deposited by the president of the society, Thomas Jefferson.

1818 A

An account of two heads found in the morass called the Big Bone Lick and presented to the society by Mr. Jefferson.

Trans. Amer. Philos. Soc. (2), 1, pp. 375-380, with pls. x, xl.

Mentions bones of mammoth and mastodon, and figures bones of extinct deer and ox.

Woodhull, Alfred A. 1872 A

On the elephant in Colorado.

Amer. Jour. Sci. (3), iii, p. 374.

Reports occurrence of *E. americanus* in Colorado.

Woodward, A. S. 1884 A

Chapter on fossil sharks and rays.

Hardwicke's Science-Gossip, xx, pp. 172-174; 227-230; 267-272, with figs. 99-101; 129-143; 161-177.

1885 A

On the literature and nomenclature of British fossil *Crocodylia*.

Geol. Magazine (3), ii, pp. 496-510.

Contains a list of papers on the subject.

1885 B

Chapters on fossil sharks and rays.

Hardwicke's Science-Gossip, xxi, pp. 106-109; 154-156; 226-229; 270-272, with figs. 71-84; 101-111; 155-161; 181-188.

These articles form a continuation of the paper 1884 A. 1886 E is the conclusion.

1886 A

On the relations of the mandibular and hyoid arches in a Cretaceous shark (*Hybodus dubrisiensis* Mackie).

Proc. Zool. Soc. Lond., 1886, pp. 218-224, pl. xx.

1886 B

Note on the presence of a columella (eipterygoid) in the skull of *Ichthyosaurus*.

Proc. Zool. Soc. Lond., 1886, pp. 405-408, woodcuts 1-4.

1886 C

On the palæontology of the selachian genus *Notidanus*.

Geol. Magazine (3), iii, pp. 205-217; 258-259, with pl. vi and 2 figs. in the text.

Woodward, A. S.—Continued. 1886 D

The history of fossil crocodiles.

Proc. Geologists' Assoc., ix, pp. 288-344, with 25 figs. in the text.

1886 E

Chapters on fossil sharks and rays.

Hardwicke's Science-Gossip, xxii, pp. 4-6, with figs. 1, 2.

This forms the conclusion of the papers of this author designated 1884 A and 1886 E.

1887 A

On the presence of a canal system, evidently sensory, in the shields of Pteraspidian fishes.

Proc. Zool. Soc. Lond., 1887, pp. 478-481, with 1 woodcut.

1887 B

On the dentition and affinities of the selachian genus *Ptychodus* Agassiz.

Quart. Jour. Geol. Soc., xliii, pp. 121-181, with pl. x.

1887 C

On "leathery turtles," recent and fossil, and their occurrence in British Eocene deposits.

Proc. Geologists' Assoc., x, pp. 2-14.

Contains numerous references to the literature of the subject.

1888 A

[Note on J. S. Newberry's paper "On the structure and relations of *Edestus*, with a description of a gigantic new species," published in Ann. N. Y. Acad. Sci., v, 1888, pp. 1-10.]

Geol. Magazine (3), v, p. 374.

1888 B

Note on Prof. W. Dames's "Die Gattung *Saurodon*," published in Sitzungsber. Ges. naturf. Freunde, Berlin, 1887.

Geol. Magazine (3), v, p. 158.

1888 C

M. Charles Brongniart on *Pleuranthus*.

Geol. Magazine (3), v, pp. 422-425.

Review of paper published in Comptes rend. Acad. Sci. Paris, April 23, 1888.

1888 D

Note on the occurrence of a species of *Onychodus* in the lower Old Red sandstone passage beds of Ledbury, Herefordshire.

Geol. Magazine (3), v, pp. 500-501.

Woodward, A. S.—Continued. 1888 E
Dr. Anton Fritsch on *Ctenodus* and other Palæozoic fishes.
Geol. Magazine (3), v, pp. 523-526.
A review of Fauna der Gaskohle, etc., Bd. II, Heft 3, pp. 65-92.

1888 F
Notes on the determination of the fossil teeth of *Myliobatis*, with a revision of the English Eocene species.
Ann. and Mag. Nat. Hist. (6), i, pp. 36-47, with pl. i.

1888 G
On the fossil fish-spines named *Cælorhynchus*, Agassiz.
Ann. and Mag. Nat. Hist. (6), II, pp. 223-226.

1888 H
On some remains of the extinct selachian *Asteracanthus* from the Oxford clay of Peterborough, preserved in the collection of Alfred N. Leeds, esq., of Eyebury.
Ann. and Mag. Nat. Hist. (6), II, pp. 336-342, with pl. xii.
Strophodus probably referable to *Asteracanthus*.

1888 I
A synopsis of the vertebrate fossils of the English Chalk.
Proc. Geologists' Assoc., x, pp. 273-338, with pl. i.

1888 J
On a head of *Hybodus delabechei*, associated with dorsal fin-spines, from the Lower Lias of Lyme Regis, Dorsetshire.
Annual Report Yorkshire Philos. Soc., 1888, pp. 58-61, with pl. i.

1889 A
A comparison of the Cretaceous fish-fauna of Mount Lebanon with that of the English Chalk.
Report Brit. Assoc. Adv. Sci., 58th meeting, Bath, 1888, p. 678.

1889 B
Remarks on *Sclerorhynchus atavus*.
Proc. Zool. Soc. Lond., 1889, pp. 449-451, with 1 woodcut.
Describes an extinct saw-fish from Mount Lebanon.

1889 C
Note on *Bucklandium diluvii*, König, a siluroid fish from the London clay of Sheppey.
Proc. Zool. Soc. Lond., 1889, pp. 208-210, with pl. xxii.

Woodward, A. S.—Continued. 1889 D
Catalogue of the fossil fishes in the British Museum. Part I. Containing the *Elasmobranchii*.
London, 1889, pt. 1, pp. i-xlvii; 1-474, pls. i-xvii, woodcuts 13.
See notice of this volume in Geol. Magazine, vi, 1889, p. 366.

1889 E
Prof. Dr. Von Zittel on palæichthyology.
Geol. Magazine (3), vi, pp. 125-130; 177-181; 227-232.
A review of Dr. Zittel's Handbuch der Palæontologie.

1889 F
Palæichthyological notes. I. On the so-called *Hybodus keuperinus*, Murch. & Strickl. II. On *Diplodus moorei*, sp. nov., from the Keuper of Somersetshire. III. On a symmetrical Hybodont tooth from the Oxford clay of Peterborough. IV. On a maxilla of *Saurichthys* from the Rhætic of Aust Cliff, near Bristol.
Ann. and Mag. Nat. Hist. (6), III, pp. 297-302, with pl. xiv.

1889 G
Acanthodian fishes from the Devonian of Canada.
Ann. and Mag. Nat. Hist. (6), iv, pp. 183-184.

1889 H
On the palæontology of sturgeons.
Proc. Geologists' Assoc., xi, pp. 24-44, with pl. i, and 13 figs. in the text.

1890 A
Vertebrate palæontology in some American and Canadian museums.
Geol. Magazine (3), vii, pp. 390-395; 455-460.

1890 B
A new theory of *Pterichthys*.
Ann. and Mag. Nat. Hist. (6), vi, pp. 314-316.
Notice of paper by W. Patten in Quart. Jour. Micros. Sci., xxxi, 1890, pp. 317-378.

1890 C
A synopsis of the fossil fishes of the English lower Oolites.
Proc. Geologists' Assoc., xi, pp. 285-306, with pl. iii.

1890 D
The fossil fishes of the Hawkesbury series at Gosford, New South Wales.
Mem. Geol. Surv. N. S. Wales, Palæont., No. 4, pp. 1-55, with pls. i-x. Sydney, 1890.
Abstract in Ann. and Mag. Nat. Hist. (6), vi, p. 423.

Woodward, A. S.—Continued. 1891 A
Catalogue of the fossil fishes in the British Museum. Part II. Containing the *Elasmobranchii* (*Acanthodii*), *Holocephali*, *Ichthyodontoidei*, *Ostracodermi*, *Dipnoi*, and *Teleostomi* (*Crossopterygii*), and chondrosteian *Actinopterygii*.

Pp. i-xliv; 1-567, pls. i-xvi and 57 text figs.

1891 B

Dr. Anton Fritsch on Palæozoic elasmobranch fishes.

Geol. Magazine (3), viii, pp. 375-378, with 2 figs.

A review of Dr. Fritsch's *Fauna der Gaskohle*, etc.

1891 C

Armored palæozoic sharks.

Geol. Magazine (3), viii, pp. 422-425.

A review of three of Dr. Otto Jaekel's papers on *Elasmobranchia*.

1891 D

Review of "Pineal fontanelle of Placoderms and catfish" by Bashford Dean in 19th Report of the Commissioners of Fisheries of N. Y., 1891.

Geol. Magazine (3), viii, p. 513.

1892 A

On the Lower Devonian fish-fauna of Campbelltown, New Brunswick.

Geol. Magazine (3), ix, pp. 1-6, pl. i.

Describes *Protodus jezi* gen. et spec. nov., *Diplodus problematicus* sp. nov., *Gyracanthus incurvus*, *Acanthodes semistriatus*, *Cephalaspis campbelltonensis*, *Phlyctenaspis acadica*.

1892 B

Palæozoic fishes.

Geol. Magazine (3), ix, pp. 233-235.

Review of Professor Cope's "On the characters of some Palæozoic fishes" and Rohon's "Ueber *Pterichthys*."

1892 C

Further contributions to knowledge of the Devonian fish-fauna of Canada.

Geol. Magazine (3), ix, pp. 481-485; pl. xiii, and 1 fig. in text.

Treats of *Phlyctenaspis acadica*, *Diplacanthus horridus*, sp. nov., *Coccoleus canadensis*, sp. nov., and *Bothriolepis*.

1892 D

On the skeleton of a Chimæroid fish (*Ichthyodus*) from the Oxford clay of Christian Malford, Wiltshire.

Ann. and Mag. Nat. Hist. (6), ix, pp. 94-96.

1892 E

The evolution of fins.

Natural Science, i, pp. 28-35, with 8 figs. in the text.

Woodward, A. S.—Continued. 1892 F
The forerunners of the backboneed animals.

Natural Science, i, pp. 596-602, with 10 figs.

1892 G

The evolution of shark's teeth.

Natural Science, i, pp. 671-675, with 12 figs. in the text.

1893 A

On the cranial osteology of the Mesozoic ganoid fishes, *Lepidotus* and *Dapedius*.

Geol. Magazine (3), x, pp. 413-414.

See Woodward, A. S., 1893 D.

1893 B

The fossil fishes of the British Coal-measures.

Geol. Magazine (3), x, pp. 72-74.

A review of James W. Davis's paper on *Pleuracanthide* in Trans. Roy. Dublin Soc., iv, pp. 703-748, 1892.

1893 C

Note on a case of subdivision of the median fin in a dipnoan fish.

Ann. and Mag. Nat. Hist. (6), xi, pp. 241-242, with 1 fig. in the text.

Describes method of separation of the anal fin of *Phaneropleuron curtum* from the caudal by fusion of the axonosts.

1893 D

On the cranial osteology of the Mesozoic ganoid fishes, *Lepidotus* and *Dapedius*.

Proc. Zool. Soc. Lond., 1893, pp. 559-565, with pls. xlix and l, and 6 figs. in the text.

1893 E

Note on the evolution of the scales of fishes.

Natural Science, iii, pp. 448-450, with figures.

1894 A

On the affinities of the Cretaceous fish *Protosphyrræna*.

Ann. and Mag. Nat. Hist. (6), xiii, pp. 510-512.

Shows the close relationships existing between *Protosphyrræna* and *Hypocormus*.

1894 B

Note on a tooth of *Oxyrhina* from the Red Crag of Suffolk.

Geol. Magazine (4), i, pp. 75-76, with 2 figs. in the text.

Refers to the finding of *Oxyrhina crassa*.

1895 A

Catalogue of the fossil fishes in the British Museum. Part III. Contain-

Woodward, A. S.—Continued.

ing the actinopterygian *Teleostomi* of the order *Chondrostei* (concluded), *Protoospondyli*, *Aëthospondyli*, and *Isoospondyli* (in part).

Pp. i-xliii, 1-544, pls. i-xviii, text figs. 45.

Review of, by R. H. Traquair in Geol. Magazine, 1896, p. 124.

1895 B

The problem of the primeval sharks.

Natural Science, vi, pp. 38-43, with 3 figs. in the text.

1895 C

On two deep-bodied species of the clupeoid genus *Diplomystus*.

Ann. and Mag. Nat. Hist. (6), xv, pp. 1-3, with pl. i, figs. 1-4.

Describes and figures *Diplomystus longicauda* and describes *D. birdi* n. sp.

1895 D

On the fossil fishes of the Upper Lias of Whitby. Part I.

Proc. Yorkshire Geol. and Polytech. Soc. (2), xiii, pp. 25-42, with pls. iii-v.

Leptolepis salttriciensis, *Photidophorus germanicus*, *Eugnathus fasciculatus*, and *Ptycholepis bollensis* are described and figured.

1895 E

The fossil fishes of the Talbragar beds (Jurassic?).

Mem. Geol. Surv. N. S. Wales, Palæont., No. 9, pp. 1-29, with pls. i-vi.

1896 A

Review of Bashford Dean's "Fishes, living and fossil."

Geol. Magazine (3), iii, pp. 135-139.

1896 B

On some extinct fishes of the Teleostean family *Goniorhynchidae*.

Proc. Zool. Soc. Lond., 1896, pp. 500-504, with pl. xviii.

1896 C

On some remains of the pycnodont fish *Mesturus*, discovered by Alfred N. Leeds, esq., in the Oxford Clay of Peterborough.

Ann. and Mag. Nat. Hist. (6), xvii, pp. 1-15, with pls. i-iii.

1897 A

On the fossil fishes of the Upper Lias of Whitby. Part II.

Proc. Yorkshire Geol. and Polytech. Soc. (2), xlii, pp. 155-170, with pls. xix-xxi.

Describes *Caturus* sp. indet. and 3 species of *Pachycormus*.

Woodward, A. S.—Continued. 1898 A

On the fossil fishes of the Upper Lias of Whitby. Part III.

Proc. Yorkshire Geol. and Polytech. Soc. (2), xlii, pp. 325-337, with pls. xlii-xlviii.

Describes and figures species of *Lepidotus*, and treats of their osteology.

1898 B

Outlines of vertebrate palæontology for students of zoology. By Arthur Smith Woodward, assistant keeper of the department of geology in the British Museum, Cambridge.

University Press, 1898, pp. i-xxiv; 1-470, with 228 figs. in the text.

Reviewed by H. F. Osborn in Natural Science, xiv, 1899, pp. 156-159.

1899 A

Notes on teeth of sharks and skates from the English Eocene formations.

Proc. Geologists' Assoc., xvi, pp. 1-14, with pl. i.

1899 B

On the fossil fishes of the Upper Lias of Whitby. Part IV.

Proc. Yorkshire Geol. and Polytech. Soc. (2), xlii, pp. 455-472, with pls. lxviii, lxix, and 13 text figs.

Describes and figures *Belonorhynchus acutus*, *B. brevirostris*, and *Gyrosteus mirabilis*.

1900 A

On some fish remains from the Parana formation, Argentine Republic.

Ann. and Mag. Nat. Hist. (7), vi, pp. 1-7, with pl. i.

1900 B

On a new ostracoderm (*Euphanerops longævus*) from the Upper Devonian of Scaumenac Bay, Province of Quebec, Canada.

Ann. and Mag. Nat. Hist. (7), v, pp. 416-418, with pl. x, figs. 1-15.

1900 C

On a new species of *Deltodus* from the Lower Carboniferous (Yoredale rocks) of Yorkshire.

Ann. and Mag. Nat. Hist. (7), v, pp. 419-420, with pl. x, figs. 2-25.

1900 D

Doctor Traquair on Silurian fishes.

Geol. Magazine (4), vii, pp. 66-72, with 4 figs. in the text.

A review of Traquair's Report on fossil fishes, etc., in Trans. Roy. Soc. Edinburgh, xxxix, pp. 827-864, pls. i-v, and 18 text-figs.

Woodward, A. S. and Sherborn, C. D.

1890 A

A catalogue of British fossil *Vertebrata*.
Pp. i-xxxv, 1-396. 8vo, London.

Table of contents: Introduction, p. v. Dates of publication of Agassiz's "Poiss. fossiles," p. xxv. Dates of publication of Owen's "Odonotography," p. xxx. Table of the stratigraphical distribution of British fossil *Vertebrata*, p. xxx. Catalogue of British fossil *Vertebrata*, pp. 1-311. Addenda and Corrigenda, p. 396.

Woodward, Henry.

1869 A

Man and the mammoth; being an account of the animals associated with early man in prehistoric times.

Geol. Magazine (1), vi, pp. 68-72.

1871 A

Seeley on the *Ornithosauria*.

Nature, iv, p. 100.

A review of H. G. Seeley's two works, here designated as Seeley, H. G., 1869 A, and Seeley, H. G., 1870 A.

1874 A

New facts bearing on the inquiry concerning forms intermediate between birds and reptiles.

Report Brit. Assoc. Adv. Sci., 43d meeting, Bradford, 1873, pp. 98-94.

1874 B

New facts bearing on the inquiry concerning forms intermediate between birds and reptiles.

Quart. Jour. Geol. Soc., xxx, pp. 8-15.

1884 A

Ueber *Archæopteryx* von W. Dames.
Geol. Magazine (3), i, pp. 418-424, with pl. xiv.

A review of W. Dames's work in Palæont. Abhandl., ii, 1884, pp. 117-196.

1885 A

On an almost perfect skeleton of *Rhytina gigas* (*Rhytina stelleri*, Steller's sea-cow), obtained by Mr. Robert Damon, F. G. S., from the Pleistocene peat-bogs of Bering Island.

Quart. Jour. Geol. Soc., xli, pp. 457-472, with 5 figs. in the text.

Contains a list of works on *Sirenia*.

1885 B

Iguanodon mantelli Meyer.

Geol. Magazine (3), ii, pp. 10-15, with pl. i.

1885 C

On "wingless birds," fossil and recent; and a few words on birds as a class.

Geol. Magazine (3), ii, pp. 308-318.

Woodward, Henry—Continued.

1885 D

On the fossil *Sirenia* in the British Museum (Natural History), Cromwell Road, S. W.

Geol. Magazine (3), ii, pp. 412-425, with 2 figs. in the text.

1886 A

On a remarkable ichthyodorulite from the Carboniferous series, Gascoyne, Western Australia.

Geol. Magazine (3), iii, pp. 1-7, pl. i, and 6 figs. in the text.

Describes *Edicetus daviesii*.

1886 B

Prof. E. D. Cope on a new type of perissodactyl ungulate from the Wasatch Eocene of Wyoming Territory, United States of North America.

Geol. Magazine (3), iii, pp. 49-52, with pl. ii. Extracts from Professor Cope's descriptions of *Phenacodus*.

1886 C

On "flightless birds," commonly called "wingless birds," fossil and recent; and a few words on birds as a class.

Proc. Geologists' Assoc., ix, pp. 352-376, with pls. i and ii, and 20 figs. in the text.

1894 A

Remarks on paper read by Dr. G. M. Dawson on elephant remains in Alaska.

Quart. Jour. Geol. Soc., i, p. 9.

1895 A

Note on the reconstruction of *Iguanodon* in the British Museum (Natural History), Cromwell Road.

Geol. Magazine (4) ii, pp. 289-292, pl. x, and 2 figs. in the text.

Woodward, M. F.

1892 A

On the milk dentition of *Procapra* (*Hyrax*) *capensis* and of the rabbit (*Lepus cuniculus*), with remarks on the relation of the milk and permanent dentition of the *Mammalia*.

Proc. Zool. Soc. Lond., 1892, pp. 38-49 with pl. ii.

1893 A

Contributions to the study of mammalian dentition. Part I. On the development of the teeth of the *Macropodidae*.

Proc. Zool. Soc. Lond., 1893, pp. 450-473, with pls. xxxv-xxxvii.

Appended is a list of references to papers by other authors.

Review by M. Schlosser in Archiv f. Anthrop., xxiv, p. 145.

Woodward, M. F.—Continued. 1894 A

On the milk dentition of the *Rodentia*, with a description of a vestigial milk incisor in the mouse (*Mus musculus*).

Anatom. Anzeiger, ix, pp. 619-631, with 3 figs. in the text.

1896 A

Contributions to the study of mammalian dentition. Part II. On the teeth of certain *Insectivora*.

Proc. Zool. Soc. Lond., 1896, pp. 567-594, with pls. xxiii-xxvi.

Appended is a list of references to 32 papers bearing on the subject.

An abstract in Archiv f. Anthrop., xxv, pp. 242-243.

1896 B

On the teeth of the *Marsupialia*, with especial reference to the pre-milk dentition.

Anatom. Anzeiger, xlii, pp. 281-291.

Review by M. Schlosser in Archiv f. Anthrop., xxv, pp. 243-244.

Woodworth, J. B. 1895 A

Three-toed dinosaur tracks in the Newark group at Avondale, N. J.

Amer. Jour. Sci. (3), i, pp. 481-482.

1900 A

Vertebrate footprints on Carboniferous shales of Plainville, Mass.

Bull. Geol. Soc. America, xi, pp. 449-454, with pl. xi and 2 text-figs.

Records finding of batrachian footprints.

1900 B

Glacial origin of older Pleistocene in Gay Head cliffs, with note on fossil horse of that section.

Bull. Geol. Soc. Amer., xi, pp. 456-460, with pls. xii, xlii.

Records finding of an astragalus of *Equus* in reputed Miocene beds.

Woolworth, Samuel. 1847 A

Description of a tooth of the *Elephas americanus*.

Amer. Jour. Agricult. and Sci., vi, pp. 31-37, with 2 figs. in the text.

Worthen, A. H. 1857 A

On the occurrence of fish remains in the Carboniferous limestone of Illinois.

Proc. Amer. Assoc. Adv. Sci., 10th meeting, Albany, 1856, pp. 189-191.

1871 A

Vertical range of the mammoth and mastodon.

Amer. Naturalist, v, pp. 606-607.

See also **St. John and Worthen; Newberry and Worthen.**

Wortman, J. L. 1882 A

Remarks on *Urnus amplidens*.

Proc. Acad. Nat. Sci. Phila., 1882, pp. 286-288.

1882 B

On the origin and development of the existing horses.

Kansas City Review of Science and Industry, v, pp. 719-726, with figs. 1-6; vi, pp. 67-75, figs. 7-22.

1883 A

L'origine du cheval.

Revue Scientifique (3), v, pp. 705-714, with text-figs. 125-144.

1883 B

Remarks on *Gulera macrodon*.

Amer. Naturalist, xvii, p. 1001.

Remarks made before Acad. Nat. Sci. Phila., April 26, 1883. These remarks do not appear in the "Proceedings" for that month.

1885 A

Cope's Tertiary *Vertebrata*.

Amer. Jour. Sci. (3), xxx, pp. 295-299.

1886 A

The comparative anatomy of the teeth of the *Vertebrata*.

8vo, pp. 351-504, with pls. i-vi and text figs. 189-268.

Reprinted from "The American System of Dentistry." Contains many figures of North American fossil vertebrates.

1890 A

Human and animal remains.

Amer. Naturalist, xxiv, pp. 592-594.

Contains directions for collecting and preserving fossil remains.

1893 A

On the divisions of the White River, or Lower Miocene, of Dakota.

Bull. Amer. Mus. Nat. Hist., v, pp. 95-105.

Contains a list of the genera characteristic of each of the different beds.

1893 B

A new theory of the mechanical evolution of the metapodial keels of *Diplarthra*.

Amer. Naturalist, xxvii, pp. 421-434, with 5 figs. in the text.

1894 A

Osteology of *Patriofelis*, a Middle Eocene creodont.

Bull. Amer. Mus. Nat. Hist., vi, pp. 129-164, with pl. i and 5 figs. in the text.

Reviewed by M. Schlosser in Archiv f. Anthrop., xxv, pp. 184-185.

- Wortman, J. L.**—Continued. 1894 B
On the affinities of *Leptacetus primus* of Leidy.
Bull. Amer. Mus. Nat. Hist., vi, pp. 229-231.
- 1895 A
On the osteology of *Agriochærus*.
Bull. Amer. Mus. Nat. Hist., vii, pp. 145-178, with pl. I and 24 figs. in the text.
Reviewed by M. Schlosser in Archiv f. Anthrop., xxv, p. 185.
- 1896 A
Species of *Hyracotherium* and allied perissodactyls from the Wasatch and Wind River beds of North America.
Bull. Amer. Mus. Nat. Hist., viii, pp. 81-110, with pl. II and 18 figs. in the text.
Remarks on, by M. Schlosser in Neues Jahrb. Mineral., 1899, II, pp. 139-142 and in Archiv f. Anthrop., xxv, pp. 221-222.
- 1896 B
Præticotherium, a member of a new and primitive suborder of the *Edentata*.
Bull. Amer. Mus. Nat. Hist., viii, pp. 259-262.
The suborder *Ganodontia* established.
- 1897 A
[Abstract of remarks on *Ganodontia*, made before New York Academy of Sciences, Dec. 7, 1896.]
Science (2), v, p. 71.
- 1897 B
The *Ganodontia* and their relationship to the *Edentata*.
Bull. Amer. Mus. Nat. Hist., ix, pp. 59-110, with 36 figs. in the text.
Abstracts of this and Wortman, J. L., 1896 B, by M. Schlosser in Archiv f. Anthrop., xxvi, pp. 179-181.
- 1898 A
The extinct *Camelidae* of North America, and some associated forms.
Bull. Amer. Mus. Nat. Hist., x, pp. 93-142, with pl. XI and 23 text figs.
- 1899 A
Restoration of *Oxyæna lupina* Cope, with descriptions of certain new species of Eocene creodonts.
Bull. Amer. Mus. Nat. Hist., xii, pp. 139-148, with pl. VII and 3 figs. in the text.
See also Cope and Wortman; Osborn and Wortman.
- Wortman, J. L., and Earle, Charles.**
1893 A
Ancestors of the tapir from the Lower Miocene of Dakota.
Bull. Amer. Mus. Nat. Hist., v, pp. 159-180, with 7 text figs.
Notice in Amer. Naturalist, xxviii, p. 466.
- Wortman, J. L., and Matthew, W. D.**
1899 A
The ancestry of certain members of the *Canidae*, the *Viverridae* and *Procyonidae*.
Bull. Amer. Mus. Nat. Hist., xii, pp. 109-139, with pl. VI and 10 text figs.
- Wright, Albert A.** 1893 A
On the ventral armor of *Dinichthys*.
Report Geol. Surv. Ohio, vii, pp. 620-626 with pl. XLIV and 2 text figs.
- 1894 A
The ventral armor of *Dinichthys*.
Amer. Geologist, xiv, pp. 313-320, with pl. IX and 2 text figs.
- Wright, R. R.** 1884 A
The relationship between the air bladder and auditory organ in *Amblyurus*.
Zoolog. Anzeiger, vii, pp. 248-252.
- Wylie, T. A.** 1859 A
Teeth and bones of *Elephas primigenius*, lately found near the western fork of White River, in Monroe County, Ind.
Amer. Jour. Sci. (2), xxviii, pp. 283-284.
- Wyman, Jeffries.** 1845 A
Communication on skeleton of *Hydrarchos sillimani*.
Proc. Boston Soc. Nat. Hist., II, pp. 65-68.
Refers the skeleton shown by Dr. Koch to *Dorudon* and probably to *Zeuglodon*.
- 1846 A
[Remarks on *Castoroides ohioensis* found in Wayne County, N. Y.]
Proc. Boston Soc. Nat. Hist., II, pp. 138-139.
- 1846 B
An anatomical description of the cranium [of *Castoroides ohioensis*].
Boston Jour. Nat. Hist., v, pp. 391-401, with pls. XXXVII-XXXIX.
This constitutes a portion of a joint paper by the above author and Dr. James Hall. See Hall, James, 1846 B.
- 1850 A
Notice of fossil bones from the neighborhood of Memphis, Tenn.
Amer. Jour. Sci. (2), x, pp. 56-64, with 5 figs. in the text.
- 1850 B
Notice of remains of vertebrated animals found at Richmond, Va.
Amer. Jour. Sci. (2), x, pp. 228-235, with 1 page of figs.
- 1850 C
Remarks on teeth of fossil fishes from Richmond, Va.
Proc. Boston Soc. Nat. Hist., III, pp. 246-247.
Teeth belonging to genus *Phylloodus*.

Wyman, Jeffries—Continued. 1850 D
Remarks on finding of bones of *Megalonyx*, *Castor*, and *Castoroides* at Memphis, Tenn.

Proc. Boston Soc. Nat. Hist., III, pp. 280-281.

1850 E

Remarks on zeuglodon bones shown by Dr. Durkee.

Proc. Boston Soc. Nat. Hist., III, pp. 328-329.

1853 A

Description of the interior of the cranium and of the form of the brain of *Mastodon giganteus*.

Amer. Jour. Sci. (2), xv, pp. 48-55, with 3 outline figs.

1853 B

[Remarks on mastodon tooth found about 40 miles west of Chicago, and on teeth of mammoth.]

Proc. Boston Soc. Nat. Hist., iv, pp. 376-378.

1853 C

Notes on the reptilian remains.

Quar. Jour. Geol. Soc., ix, pp. 64-66, with pls. II, III.

Discusses the structure and relationships of the bones of *Dendropteron acadianum*.

1855 A

Notice of fossil bones from the red sandstone of the Connecticut Valley.

Amer. Jour. Sci. (2), xx, pp. 394-397.

No systematic names employed.

1855 B

Fossil footprints.

Proc. Boston Soc. Nat. Hist., v, p. 258. Also in Amer. Jour. Sci. (2), xxi, 1856, p. 446.

1855 C

Description of a portion of the lower jaw of *Mastodon andium* of Cuvier; also of a tooth and fragment of the femur of a mastodon, brought from Chile by Lieut. J. M. Gilliss, U. S. N.

Exec. Doc. No. 121, 33d Cong., 1st sess.: The U. S. Naval Astron. Exped. to the Southern Hemisphere during the years 1849-1852, Lieut. J. M. Gilliss, supt., vol. II, pp. 276-281, with pls. XII, XIII.

1856 A

Account of some fossil bones collected in Texas.

Proc. Boston Soc. Nat. Hist., vi, pp. 51-55.

Describes some bones of *Elephas*, *Mastodon*, and *Megatherium*.

1857 A

Notes on the teeth of an elephant discovered near Zanesville, Ohio.

Proc. Amer. Assoc. Adv. Sci., 10th meeting, Albany, 1856, pp. 169-172.

Wyman, Jeffries—Continued. 1857 B
On a batrachian reptile from the Coal formation.

Proc. Amer. Assoc. Adv. Sci., 10th meeting, Albany, 1856, pp. 172-173.

For more complete descriptions and names of the species, see Wyman, J. 1858 A.

1858 A

On some remains of batrachian reptiles discovered in the Coal formation of Ohio, by Dr. J. S. Newberry and C. M. Wheatley.

Amer. Jour. Sci. (2), xxv, pp. 158-163, with 2 figs. in the text.

Abstract in Zeitschr. gesamt. Naturwiss., xlii, pp. 71-72, 1859.

1860 A

Exhibition of skull of capybara found fossil on the southwestern frontier of the United States.

Proc. Boston Soc. Nat. Hist., vii, p. 350.

1862 A

Observations upon the remains of extinct and existing species of *Mammalia* found in the crevices of the lead-bearing rocks and in the superficial accumulations within the lead region of Wisconsin, Iowa, and Illinois.

J. D. Whitney's Report Geol. Surv. Upper Miss. Lead Region, pp. 421-423.

1867 A

Remarks on finding of bones of great auk on Goose Island, Casco Bay.

Proc. Boston Soc. Nat. Hist., xi, pp. 301-303.

1872 A

The osteology and myology of *Didelphys virginiana*, with an appendix on the brain.

Mem. Boston Soc. Nat. Hist., II, pp. 41-154, with 36 figs. in the text.

Yates, L. G.

1874 A

Fossil elephant and mastodon in California.

Amer. Jour. Sci. (3), viii, p. 148.

1874 B

Letter relating to mammalian fossils in California.

Proc. Acad. Nat. Sci. Phila., 1874, pp. 18-21.

Young, John.

1866 A

On the affinities of *Platysomus* and allied genera.

Quart. Jour. Geol. Soc., xxii, pp. 301-317, with pls. xx, xxi, and 4 figs. in the text.

Restriction and definition of *Platysomus* Ag.

- Young, John**—Continued. 1866 B
Notice of new genera of Carboniferous *Glyptodipterines*.
Quart. Jour. Geol. Soc., xxii, pp. 596-606, with 8 figs. in the text.
Defines *Rhizodus* Owen.
- Zigno, A. de.** 1887 A
Quelques observations sur les siréniens fossiles.
Bull. Soc. Géol. France (3), xv, pp. 728-732, pl. xxvii.
- Zilliken, J. E.** 1879 A
Die Entstehung des Kamelhöckers.
Kosmos, vi, pp. 143-146.
- Zittel, Karl A.** 1882 A
Ueber Flugsaurier aus dem lithographischen Schiefer Bayerns.
Paläontographica, xxix, 47-81, with pls. x-xiii (1-iv).
- 1886 A
Ueber *Ceratodus*.
Sitzungsber. k. p. Akad. Wissensch. München., 1886, pp. 258-261, with plate.
- 1890 A
Handbuch der Paläontologie. I. Abth. Paläozoologie. III Band. *Vertebrata (Pisces, Amphibia, Reptilia, Aves)*.
Pp. 1-xii; 1-900, with 719 illus. Munich and Leipzig, 1887-1890.
Pp. 1-xii; 1-256 were issued in 1887; pp. 257-436 in 1888; pp. 437-632 in 1889; pp. 633-900 in 1890.
- Zittel, Dr. Karl A.**—Continued. 1893 A
The geological development, descent, and distribution of the *Mammalia*.
Geol. Magazine (3), x, pp. 401-412, 455-468, 501-514.
- 1893 B
Handbuch der Paläontologie. I. Abth. Paläozoologie. IV Band. *Vertebrata (Mammalia)*.
Pp. 1-xi, 1-799, with 590 figs. in the text.
Munich and Leipzig, 1891-1893.
- 1896 A
Fossil fishes in the British Museum.
Natural Science, viii, pp. 408-413.
A review of the first three volumes of A. S. Woodward's "Catalogue of the fossil fishes in the British Museum."
- Zograf, N.** 1896 A
Note sur l'odontographie des Ganoïdei Chondrostei.
Ann. Sci. Naturelles (8) Zool., i, pp. 197-219, with pls. iv, v.
- Zwick, Wilhelm.** 1897 A
Beiträge zur Kenntniss des Baues und der Entwicklung der Amphibien-gliedmassen, besonders von Carpus und Tarsus.
Zeitschr. wissenschaft. Zool., lxxiii, pp. 62-114, with pls. iv, v.
A list of the principal memoirs and papers dealing with the subject is appended.

ADDENDUM.

- Ballou, William H.** 1898 A
The serpent-like sea saurians.
Pop. Sci. Month., liii, pp. 209-225, with 2 pls. and 6 text figs.
- Baur, G.** 1892 D
Der Carpus der Schildkröten.
Anatom. Anzeiger, vii, pp. 206-211, with figs. 1-4.
- Cope, E. D.** 1877 AA
Verbal communication on a new locality of the Green River shales containing fishes, insects, and plants in a good state of preservation.
Paläont. Bull. No. 25, p. 1.
This appears to have been a communication made to the American Philosophical Society, but it does not appear in the proceedings. It contains a list of the fishes obtained, some general remarks on their relationships, but no descriptions. "Published August 3, 1877."
- Lucas, F. A.** 1890 B
Description of some bones of Pallas cormorant (*Phalacrocorax persipillatus*).
Proc. U. S. Nat. Mus., xii, pp. 88-94, with pls. ii-iv.
- 1890 C
The expedition to Funk Island, with observations upon the history and anatomy of the great auk.
Rep. U. S. Nat. Mus., 1887-1888, pp. 493-529, with pls. lxxi-lxxiii.
- Rohon, J. V.** 1899 A
Die Devonischen Fische von Timan in Russland.
Sitzungsber. k. böhm. Gesellsch. Wissensch., math.-naturw. Cl., 1899, art. viii, pp. 1-77, with 45 text figs.
- 1899 B
Ueber Parietalorgane und Paraphysen.
Sitzungsber. k. böhm. Gesellsch. Wissensch., math.-naturw. Cl., 1899, art. xxxiii, pp. 1-15, with 6 text figs.

TABULAR KEY TO CATALOGUE.
Class ELASMOBRANCHII.

Subclass.	Superorder.	Order.	Suborder.	Superfamily.	Family.	Page.
Plagiostomata.	Ichthyotomi.	Pleuracanthides			Pleuracanthidae	263
		Pleuropterygia			Cladodontidae	267
		Acanthodii			Cladocelachidae	272
	Aristoselachii	Selacha			Acanthoosidae	273
					Diplacanthidae	274
					Petalodontidae	275
				Petalodontoides	Psammodontidae	284
			Heterodontoides		Cochlodontidae	286
					Orodontidae	295
			Hexanchoides		Heterodontidae	298
					Hexanchidae	300
			Squali		Lamnidae	301
					Scylliorhinidae	310
				Galeoides	Galeidae	310
				Squaloides	Somnioides	314
			Pachyura		Tamlobatidae	315
					Rajidae	315
Holocephala			Rajae		Pristidae	316
					Psychodontidae	317
			Masticura		Dasyatidae	318
					Myliobatidae	319
					Mantidae	321
				Chimeroides	Psychodontidae	322
					Chimeridae	323

ICHTHYODORULITES (p. 328).

Class PISCES.

Aspidogonoidel	Heterostraci	Pteraspidae	339
	Oncostraci	Cephalaspidae	340
	Antiarcha	Euphaneropidae	341
		Asterolepidae	342
Placodermi		Cocosteidae	344
	Arthrodra	Macropetalichthyidae	349
		Asterosteidae	349
		Phyllolepidae	349
		Mylostomatidae	350
		Dipteridae	351
Dipnoi	Ctenodipterini	Phaneropleuridae	352
		Ctenodontidae	353
	Sirenoidel	Ceratodontidae	355
		Holoptychiidae	358
	Rhipidistia	Megalichthyidae	359
Crossopterygia		Osteolepidae	361
	Actinistia	Onychodontidae	362
		Coelacanthidae	363
		Palaeoniscidae	365
	Chondrostei	Platysomidae	369
		Diptyopogidae	370
		Acipenseridae	371
	Pseudonoti	Polyodontidae	371
		Pseudodontidae	372
		Lepidotidae	374
Actinopteri	Ginglymodi	Lepisosteidae	376
		Isopholdae	378
	Holostei	Macrosemidae	378
		Pachycormidae	378
		Amiidae	380
	Nematognathi	Siluridae	382
Teleostomi			

Class PISCES—Continued.

Subclass.	Superorder.	Order.	Suborder.	Superfamily.	Family.	Page.
Teleostomi	Actinopteri.	Isospondyli.			{Pholidophoridae.....	383
					{Chirocentridae.....	383
					{Stratodontidae.....	387
					{Pachyrhizodontidae.....	387
					{Enchodontidae.....	388
					{Albulidae.....	390
					{Clupeidae.....	390
					{Salmonidae.....	392
					{Gonorhynchidae.....	392
					{Osteoglossidae.....	393
Teleostomi	Actinopteri.	Plectospondyli.			{Cyprinidae.....	394
					{Deretidae.....	396
					{Gasterosteidae.....	397
					{Syngnathidae.....
					{Hippocampidae.....
					{Lucidae.....	398
					{Poecilidae.....	398
					{Esocidae.....
					{Hemirhamphidae.....
					{Scomberesocidae.....
Teleostomi	Actinopteri.	Meteichthyes.			{Mugilidae.....	399
					{Sphyrenidae.....	399
					{Chaetodontidae.....	400
					{Labridae.....	400
					{Pomacentridae.....	401
					{Berycidae.....	402
					{Xiphiidae.....	402
					{Trichiuridae.....	403
					{Carangidae.....	403
Teleostomi	Actinopteri.	Percomorphi.			{Berycoidea.....
					{Scombroidea.....

[illegible]

Class BATRACHIA.

[illegible]

464	464	Mossauridae.....			
471	471	Iguanide.....			
474	474	Anguide.....			
476	476	Varanide.....			
476	476	Amphisbenidae.....			
478	478	Chamaeleonidae.....			
479	479	Palaeophidae.....			
480	480	Boidae.....			
480	480	Colubridae.....			
482	482	Crotalidae.....			
484	484	Morosauridae.....			
486	486	Atlantosauridae.....			
487	487	Diplodocidae.....			
491	491	Megalosauridae.....			
492	492	Anchisauridae.....			
493	493	Coeluridae.....			
494	494	Ceratosauroidea.....			
494	494	Ornithomimidae.....			
494	494	Hallopidae.....			
495	495	Stegosauridae.....			
497	497	Nodosauridae.....			
498	498	Ceratopsidae.....			
501	501	Camptosauridae.....			
502	502	Iguanodontidae.....			
503	503	Trachodontidae.....			
505	505	Nanosauridae.....			
505	505	Maceognathidae.....			
506	506	Ornithocephalidae.....			
507	507	Pteranodontidae.....			
508	508	Nyctosauridae.....			
509	509	Phytosauridae.....			
511	511	Aetosauridae.....			
511	511	Crocodylidae.....			
515	515	Gavialidae.....			
516	516	Gontopholidae.....			
<hr/>					
	Pythonomorpha.....				
	Sauria.....				
	Rhaptoglossi.....				
	Serpentes.....				
	Ophiocercia.....				
	Theropoda.....				
	Dinosauria.....				
	Stegosaurioidea.....				
	Ceratopsioidea.....				
	Iguanodontioidea.....				
	Orthopoda.....				
	Perosauri.....				
	Parasuchia.....				
	Aetosauria.....				
	Loricata.....				
	Eusuchia.....				

Class AVES

Subclass.	Superorder.	Order.	Suborder.	Superfamily.	Family.	Page.
Saurura.	Odontotormæ	Ornithopappi.			Archæopterygida.	518
		Pteropappi.			Pteromyrithida.	519
					Apatornithida.	520
		Dromæopappi			Hesperornithida.	521
Eurhipidura.	Odontocæ	Gastornithes.			Gastornithida.	522
					Colymbida.	523
					Alcida.	524
					Larida.	525
	Dromæognathæ				Procellariida.	526
					Charadriida.	526
					Scolopacida.	526
					Gruida.	527
					Rallida.	528
					Anatida.	529
					Phenicopterida.	531
					Ardeida.	531
	Euornithes.				Pelecanida.	532
					Sulida.	532
					Phalacrocoracida.	533
					Tetraonida.	534
	Gallina.				Phasianida.	534
					Gallinuloidida.	535
					Cathartida.	535
					Falconida.	536
	Raptores.				Strigida.	536
					Corvidæ.	537
	Pasereta.				Icterida.	537
					Pringillida.	537

Class MAMMALIA.

Prototheria.....					555
					557
					558
					564
					565
					566
					568
					569
					570
					572
					573
					575
					580
					581
					582
					582
					583
					584
					586
					588
					590
					593
					595
					598
					602
					605
					605

Class MAMMALIA—Continued.

Subclass.	Superorder.	Order.	Suborder.	Superfamily.	Family.	Page.
Eutheria	Monodelphia	Ungulata	Perissodactyla	Equoidea	Equidae	608
				Tapiroidea	Lophiodontidae	624
				Brontotherioidea	Tapiridae	626
					Brontotheriidae	629
			Rhinocerotoides	Hyracodontidae	638	
				Amynodontidae	641	
				Rhinocerotidae	642	
				Pantolestidae	648	
			Pantolestoides	Homacodontidae	649	
				Helohyidae	650	
				Eohyidae	650	
				Suidae	651	
		Artiodactyla	Anthracotherioidea	Anthracotheriidae	653	
			Suioidea	Suidae	662	
			Cameloides	Agriochoeridae	673	
			Camelidae	681		
		Traguloides	Traguloides	Tragulidae	681	
			Booidea	Cervidae	686	
				Antilocapridae	686	
				Bovidae	686	
	Ancylopoda	Chalicotherioidea	Chalicotheriidae	690		
			Peripitychidae	693		
			Pantolambdidae	696		
			Coryphodontidae	697		
		Pantodonta	Bathypodidae	700		
			Tinoceridae	701		
		Dinoceres	Elephantidae	707		
			Ethonychidae	715		
		Tillodontia	Anehippodontidae	716		

CATALOGUE.

Class ELASMOBRANCHII Bonaparte.

- Bonaparte, C. L.* 1832-1841, Icon. Fauna Ital., III, Introd.
- Agassiz, L.* 1843 B, I, p. 170; III, p. 73. ("Placoides.")
 1844 A. ("Placoides.")
 1845 A. ("Placoides.")
- Balfour, F. M.* 1881 A.
- Beard, J.* 1890 A.
- Braus, H.* 1896 A.
- Bridge, W. J.* 1879 A.
- Brühl, B. C.* 1847 A.
 1896 A, p. 583.
- Calori, L.* 1894 A.
- Cope, E. D.* 1872 C. (Selachii.)
 1877 O, p. 41.
 1878 A.
 1884 N, p. 579.
 1885 G.
 1887 B, pp. 319, 320, 324.
 1889 B, pp. 853, 854.
 1890 B.
 1891 N, pp. 10, 15.
 1896 B, pp. 17, 21.
- Dean, B.* 1895 A.
 1896 B.
- Dohrn, A.* 1886 A.
- Duméril, A.* 1865 A.
- Eastman, C. R.* 1896 A, p. 108.
- Fritsch, A.* 1889 B, p. 96. (Selachii.)
- Gadow, H.* 1898 A, p. 5.
- Gadow and Abbott* 1895 A.
- Garman, S.* 1884 C.
- Gegenbaur, C.* 1865 B, pp. 77, 132.
 1872 A.
 1876 A.
 1895 B.
 1896 A.
- Gill, T.* 1861 A, p. 22.
 1862 A.
 1864 B.
 1884 C.
 1893 A.
- Goeppert, E.* 1895 A.
 1895 B.
- Goette, A.* 1878 A.
- Günther, A.* 1870 A, p. 343. (Chondropterygii.)
 1872 A, p. 564. (Chondropterygii.)
 1890 A, p. 313. (Chondropterygii.)
 1881 A, p. 685. (Chondropterygii.)
- Haeckel, E.* 1895 A, p. 238. (Selachii.)
- Hannover, A.* 1868 A.
- Hasse, C.* 1876 A.
 1877 A.
 1878 A.
 1879 A.
 1879 B.
 1882 A.
 1893 A.
- Haswell, W. A.* 1884 A.
- Hay, O. P.* 1899 F, p. 682.
- Hertwig, O.* 1874 A.
- Howes, G. B.* 1890 A.
- Hubrecht, A. A. W.* 1878 A.
- Huxley, T. H.* 1872 A, p. 111.
 1876 A.
- Jaekel, O.* 1890 A.
 1890 C.
 1890 D.
 1891 B.
 1891 D. (Selachii.)
 1894 A.
- Klaatsch, H.* 1890 A, p. 103.
 1896 A.
- Köellin, O.* 1844 A.
- Markert, F.* 1896 A, p. 664.
- Marsh, O. C.* 1877 E.
- Mayer, P.* 1886 A.
- Metschnikoff, O.* 1879 A, p. 424.
- Mivart, St. G.* 1879 A.
- Mollier, S.* 1892 A.
 1893 A.
- Müller, J.* 1846 C, p. 208. (Elasmobranchii, seu Selachii.)
- Müller and Henle* 1841 A.
- Newberry, J. S.* 1873 A.
 1875 A.
- Newberry and Worthen* 1886 A.
- Nicholson and Lydekker* 1889 A, p. 923.
- Osborn, H. F.* 1899 I, p. 153.
- Owen, R.* 1847 B.
 1860 E, p. 99.
 1866 A. (Plagiostomi.)
- Parker, W. K.* 1878 A.
- Pictet, F. J.* 1854 A, p. 225. ("Placoides.")
- Pollard, H. B.* 1894 B.
- Reis, O. M.* 1896 A, p. 202.
- Röse, C.* 1892 A.
 1897 A, p. 62.
- Ryder, J. A.* 1885 B.
 1886 A.
 1892 A.
- St. John and Worthen* 1875 A.
 1883 A.
- Stannius, H.* 1854 A.
- Steinmann and Döderlein* 1890 A, p. 529.
- Thacher, J. K.* 1877 A, p. 284.
 1877 B.
- Van Beneden, P. J.* 1861 B
- Wiederaheim, R.* 1889 A, p. 428.
- Woodward, A. S.* 1894 A.
 1885 B.
 1886 E.
 1889 D.
 1891 A, p. xi.
 1891 C.
 1895 B.
 1898 B, p. 17.
- Worthen, A. H.* 1857 A.
- Wortman, J. L.* 1886 A, p. 370.
- Zittel, K. A.* 1890 A, p. 60. (Selachii.)

Subclass **PLAGIOSTOMATA** Müller.*Müller, J.* 1835 A.

Gill, T. 1861 A., p. 23. (Plagiostomi.)

Günther, A. 1870 A., p. 358.

1871 A., p. 428.

1880 A., p. 313.

Howes, G. B. 1887 A. (Plagiostomi.)

Huxley, T. H. 1872 A., p. 120. (Plagiostomi.)

Müller, J. 1846 C., p. 203. (Plagiostomi.)

Owen, R. 1845 B., p. 23. (Plagiostomi.)

Stannius, H. 1854 A. (Plagiostomi.)

Zittel, K. A. 1890 A., p. 64. (Plagiostomi.)

Superorder **ICHTHYOTOMI** Cope.

Cope, E. D. 1884 U.

Brongniart, C. 1888 A. (Pterygacanthidæ, as subclass.)

1888 B., p. 180. (Pterygacanthidæ.)

1888 C., p. 36. (Pterygacanthidæ.)

Cope, E. D. 1884 B.

1884 N., p. 561.

1884 N., p. 589. (Xenacanthini.)

1884 HH.

1885 G. 1887 S., p. 325.

1889 H.

1889 B., p. 854.

1891 N., p. 15.

1892 N., p. 280.

1893 L.

1893 N., p. 1080.

1894 F., p. 430.

1898 B., pp. 22, 23.

Davis, J. W. 1892 A., p. 704.

Fritsch, A. 1889 B., p. 96. (Xenacanthidæ.)

1891 B. (Ichthyotomi.)

1895 A., p. 83.

Gadow, H. 1898 A., p. 5. (Proselachii.)

Garman, S. 1884 C.

1886 B., p. 29.

Gill, T. 1884 A. (Xenacanthini.)

1884 B. (Xenacanthini.)

1884 C.

Haeckel, E. 1895 A., p. 240. (Proselachii.)

Kehner, F. A. 1876 A., p. 348. ("Proselachier.")

Koken, E. 1889 A., p. 87.

Nicholson and Lydekker, R. 1889 A., p. 926.

Steinmann and Döderlein, 1890 A., p. 541. (Proselachii.)

Woodward, A. S. 1889 D., p. 1.

1898 B., pp. 17, 32.

Order **PLEURACANTHIDES** Haeckel.

Haeckel, E. 1895 A., p. 236.

PLEURACANTHIDÆ.

Brongniart, C. 1888 B.

1888 C.

Brown, C. 1900 A., p. 174.

Cope, E. D. 1889 B., p. 854.

1894 F., p. 436.

1898 B., p. 23.

Davis, J. W. 1880 A.

1880 B.

1892 A.

Fritsch, A. 1889 B., p. 96. (Xenacanthidæ.)

1891 B. (Xenacanthidæ.)

1895 A., p. 33. (Xenacanthidæ.)

Gefinitz, H. B. 1860 A., p. 468. (Xenacanthi.)

1861 A., p. 22. (Xenacanthi.)

Gegenbaur, C. 1895 B. (Xenacanthini.)

Hasse, C. 1878 A., p. 169.

Jaekel, O. 1890 D., p. 124. (Xenacanthini.)

1894 A., p. 64. (Xenacanthini.)

1895 A. (Pleuracanthidæ.)

Nicholson and Lydekker 1889 A., p. 926.

Reis, O. M. 1897 A.

Steinmann and Döderlein 1890 A., p. 541.

Traquair, R. H. 1900 B., p. 516.

Woodward, A. S. 1885 B., p. 155.

1889 D., p. 1.

1892 E.

1898 B., p. 33.

Zittel, K. A. 1890 A., p. 88. (Xenacanthidæ.)

PLEURACANTHUS Agassiz. Type *P. levissimus* Agassiz.

Agassiz, L. 1843 B (1837), iii, p. 66.

1844 A.

Barkas, T. P. 1873 A., p. 17.

Beyrich, E. 1848 A. (Xenacanthus, type *X. decherti*.)

Brongniart, C. 1888 A.

1888 B.

1888 C.

Brown, C. 1900 A., p. 172.

Case, E. C. 1898 B., p. 403.

Cope, E. D. 1884 B.

1884 N., p. 589.

Cope, 1889 H.

1890 B., pl. xiv.

1893 N., pl. xxix.

Davis, J. W. 1880 A. (Pleuracanthus, Xenacanthus.)

1880 B. (Pleuracanthus, Xenacanthus.)

1885 A.

1892 A., p. 705.

Dean, B. 1894 A. (Xenacanthus.)

1895 A., p. 83, figs. 90-90b.

1896 C., p. 246.

Döderlein, L. 1889 A.

- Egerton, P. G. 1857 B. (Pleuracanthus, Xenacanthus.)
 Emery, C. 1897 B.
 Fritsch, A. 1888 A, fig. (Xenacanthus.)
 1889 A. (Xenacanthus.)
 1889 B, p. 99.
 1890 A, fig. (Pleuracanthus, Xenacanthus.)
 1890 B.
 1891 A.
 1891 B. (Xenacanthus.)
 1895 A (1890), p. 3 (Pleuracanthus); p. 21 (Xenacanthus).
 Gegenbaur, C. 1898 A.
 Geinitz, B. 1860 A, p. 468.
 1861 A, p. 22.
 Gill, T. 1884 A. (Xenacanthus.)
 1884 C. (Xenacanthus.)
 Haeckel, E. 1895 A, p. 241.
 Hasse, C. 1879 A, p. 65.
 Jaekel, O. 1890 D, p. 125. (Xenacanthus.)
 1891 C, p. 168. (Xenacanthus.)
 1894 A, p. 103. (Orthacanthus.)
 1895 A. (Pleuracanthus, Xenacanthus.)
 1899 A, p. 295.
 Kner, R. 1867 A. (Pleuracanthus, Xenacanthus.)
 1868 A, p. 279. (Xenacanthus.)
 Koken, E. 1889 A.
 Lütken, C. 1868 A. (Xenacanthus.)
 Miller, S. A. 1889 A, p. 607.
 Mollier, S. 1893 A, p. 114.
 Nicholson and Lydekker, 1889 A, p. 926.
 Owen, R. 1860 E, p. 103.
 Pictet, F. J. 1854 A, p. 273 (Xenacanthus); p. 294 (Pleuracanthus).
 Quenstedt, F. A. 1885 A, p. 289.
 Reiss, O. M. 1896 A.
 1897 A.
 Roemer, F. 1857 A, p. 60.
 Steinmann and Döderlein 1890 A, p. 541.
 Ward, J. 1890 A, p. 184.
 Woodward, A. S. 1888 C.
 1889 D, pp. xix, 2.
 1889 F, p. 300.
 1891 B, p. 377, figs. 1, 2.
 1892 E, figs. 2, 3, 7.
 1893 B.
 1896 A, p. 138.
 1898 B, p. 33.
 Zittel, K. A. 1890 A, p. 89.
Pleuracanthus arcuatus Newb.
Newberry, J. S. 1856 B, p. 100.
Lesley, J. P. 1889 A, p. 506, figure (Orthacanthus); p. 700 (Pleuracanthus).
 1895 A, pl. dlxxi. (Orthacanthus.)
Newberry, J. S. 1873 A, p. 332, pl. xl, fig. 4. (Orthacanthus.)
Nicholson and Lydekker, 1889 A, p. 939.
Woodward, A. S. 1889 D, p. 8.
 Coal-measures; Ohio.
Pleuracanthus biserialis Newb.
Newberry, J. S. 1856 B, p. 100.
Woodward, A. S. 1889 D, p. 9.
 Coal-measures; Ohio.
Pleuracanthus dilatatus Newb.
Newberry, J. S. 1856 B, p. 100.
Woodward, A. S. 1889 D, p. 9.
 Coal-measures; Ohio.
Pleuracanthus quadriseriatus (Cope).
Cope, E. D. 1877 E, p. 192. (Orthacanthus.)
Case, E. C. 1900 A, p. 700, pl. i, figs. 3a, 3b. [P.(Orthacanthus).]
Cope, E. D. 1881 K, p. 163. (Orthacanthus.)
Woodward, A. S. 1889 D, p. 9.
 Permian; Illinois.

ORTHACANTHUS Agassiz. Type *O. cylindricus* Agassiz.

- Agassiz, L.* 1843 B, iii, pl. xiv, figs. 7-9.
Beyrich, E. 1848 A, p. 28.
Brongniart, C. 1888 B, p. 180. (Syn. of Pleuracanthus.)
Cope, E. D. 1893 N, p. 1080.
Davis, J. W. 1880 A, p. 349.
 1880 B, p. 321.
 1892 A, p. 705. (Syn. of Pleuracanthus.)
Fritsch, A. 1889 B, p. 99.
 1890 B.
 1891 A.
 1891 B.
 1895 A (1890), p. 33.
Goldfuss, A. 1849 A.
Jaekel, O. 1891 C, p. 167.
 1894 A, p. 103.
 1895 A, p. 83.
Kner, R. 1867 A.
Koken, E. 1889 A.
Lütken, C. 1868 A.
Miller, S. A. 1889 A, p. 604.
Newberry, J. S. 1889 A, p. 214.
Nicholson and Lydekker 1889 A, p. 926. (Syn. of Pleuracanthus.)
Pictet, F. J. 1854 A, p. 295.
Reiss, O. M. 1897 A.
Ward, J. 1890 A, p. 187.
Woodward, A. S. 1889 D, p. 2. (Syn. of Pleuracanthus.)
 1891 B, p. 377.
 1896 A, p. 135.
Zittel, K. A. 1890 A, p. 90.
Orthacanthus gracilis Newb.
Newberry, J. S. 1875 A, p. 56, pl. lix, fig. 7.
Case, E. C. 1900 A, p. 701, pl. i, fig. 4. [Pleuracanthus (Orthacanthus).]
Cope, E. D. 1881 K, p. 163.
 1888 BB, p. 285.
Lesley, J. P. 1889 A, p. 506, fig.
Miller, S. A. 1889 A, p. 604, fig. 1154.
 1895 A, pl. D lxxi.
Woodward, A. S. 1889 D, p. 9 (Orthacanthus?).
 Permian; Illinois.

Compsacanthus Newb. Type *C. laevis* Newb.

- Newberry, J. S. 1856 B, p. 100.
 Davis, J. W. 1890 A, p. 355.
 1883 A, p. 354.
 1892 A, p. 706. (Syn. of *Pleuracanthus*.)
 Miller, S. A. 1889 A, p. 592.
 Newberry, J. S. 1873 A, p. 331.
 Woodward, A. S. 1889 D, p. 9. (Syn. of *Pleuracanthus*.)
 Zittel, K. A. 1890 A, p. 117.

***Compsacanthus laevis* Newb.**

- Newberry, J. S. 1856 B, p. 100.
 Miller, S. A. 1889 A, p. 592, fig. 1114.
 Newberry, J. S. 1873 A, p. 332, pl. xl, figs. 5, 5a.
 1889 A, p. 204.
 Woodward, A. S. 1889 D, p. 9. (*Pleuracanthus*.)
 Coal-measures; Ohio.

DIACRANODUS Garman. Type *Didymodus? compressus* Cope, = *D. texensis* Cope; not *Diplodus compressus* of Newberry.

- Garman, S. 1885 B, p. 30.
 Cope, E. D. 1883 K, p. 108 (*Didymodus* in part, to replace *Diplodus*, preoccupied by Rafinesque).
 1884 A. (*Didymodus*.)
 1884 B. (*Didymodus*.)
 1884 N. (*Didymodus*.)
 1884 U. (*Didymodus*.)
 1884 CC. (*Didymodus*.)
 1885 P. (*Didymodus*.)
 1894 F, p. 436. (*Didymodus*.)
 Davis, J. W. 1885 A. (*Didymodus*.)
 1892 A, p. 709. (Syn. of *Pleuracanthus*.)
 Fritsch, A. 1895 A (1890), p. 46. (*Orthacanthus*.)
 Garman, S. 1884 B. (*Diplodus*.)
 1885 A. (*Diplodus*.)
 Gill, T. 1884 A. (*Didymodus*.)
 Goldfuss, A. 1847 A, p. 23, pl. v, figs. 9-11. (*Orthacanthus*.)
 Jaekel, O. 1894 A, p. 103. (*Didymodus*.)
 Koken, E. 1889 A, pp. 87 (*Pleuracanthus*); p. 91 (*Triacranodus*.)
 Woodward, A. S. 1889 D, p. 15 (*Diacranodus*.)
 1890 A, p. 394. (*Didymodus*.)
 1898 B, p. 32. (*Didymodus*.)

- Zittel, K. A. 1890 A, p. 90. (*Didymodus*.)

***Diacranodus platypternus* (Cope).**

- Cope, E. D. 1884 N, p. 587, figs. 8, 9. (*Didymodus*.)
 1884 CC, p. 818, pl. xxiii. (*Didymodus*.)
 1888 BB, p. 285. (*Didymodus*.)
 Garman, S. 1885 B, p. 30. (*Diacranodus*.)
 Permian; Texas.

***Diacranodus texensis* (Cope).**

- Cope, E. D. 1883 K, p. 108. (*Didymodus? compressus* Newb.)
 Case, E. C. 1900 A, p. 701, pl. 1, figs. 5a-5d. [*Pleuracanthus* (*Didymodus*).]
 Cope, E. D. 1884 N, pp. 573, 575. (*Diplodus compressus* Cope, not of Newberry.)
 1884 CC, p. 818, pl. xxiii. (*Didymodus compressus*.)
 1885 D, p. 406. (*Pleuracanthus compressus*.)
 1888 BB, p. 285. (*Didymodus*.)
 Garman, S. 1885 B, p. 30. (*Diacranodus compressus*.)
 Woodward, A. S. 1889 D, p. 15. (*Didymodus*.)
 Permian; Texas, Illinois.

DITTODUS Owen. Type, none assigned; *D. divergens* Owen = *Diplodus gibbosus* Agassiz may be taken.

- Owen, E. 1867 B, p. 325, pl. i.
 Unless otherwise indicated, the following writers designate this genus by the name *Diplodus*. This name is, however, preoccupied.
 Agassiz, L. 1843 B, iii, p. 204. (*Diplodus*, type *D. gibbosus*. Name preoccupied by Rafinesque, 1810.)
 1844 A.
 Barkas, T. P. 1868 B.
 1874 A, pp. 344, 346.
 Cope, E. D. 1883 K, p. 108. (*Didymodus* in part.)
 1884 A.
 1884 B.
 1884 N.
 Davis, J. W. 1880 A, p. 349.
 1880 B, p. 321.
 1885 A. (Syn. of *Pleuracanthus*.)
 1892 A, p. 705. (Syn. of *Pleuracanthus*.)
 Destinez, P. 1898 A, p. 219.
 Eastman, C. R. 1899 C, p. 483.
 Egerton, P. G. 1857 B.
 Garman, S. 1884 B.

- Gill, T. 1884 A.
 Hasse, C. 1879 A, p. 67.
 Hay, O. P. 1899 E, p. 791. (*Dittodus*.)
 Jaekel, O. 1885 A, p. 78.
 Kner, R. 1867 A.
 Koken, E. 1889 A.
 Miller, S. A. 1889 A, p. 596.
 1892 A, p. 714. (*Dissodus*, type *D. gibbosus*.)
 Newberry, J. S. 1873 A, pp. 285, 333, 334.
 1875 A, p. 44.
 Owen, R. 1867 B, p. 325 (*Dittodus*); p. 359 (*Aganodus*); p. 346 (*Ochlodus*); p. 363 (*Pternodus*).
 Pictet, F. J. 1854 A, p. 259.
 Stock, T. 1882 B.
 Thompson, J. 1871 A. (*Dittodus*.)
 Ward, J. 1890 A, p. 138.
 Woodward, A. S. 1885 B, p. 155.
 1889 D, pp. 2, 12. (*Pleuracanthus*, *Diplodus*.)
 1889 F, p. 299.
 1896 B, p. 33. (*Diplodus*.)
 Woodward and Sherborn 1890 A, p. 66.
 Zittel, K. A. 1890 A, p. 90.

Dittodus acinaces (Dawson).

Dawson, J. W., 1860 B, suppl. p. 46, fig. 43. (Diplodus.)

- 1863 D, p. 11. (Diplodus.)
 1868 A, p. 211, fig. 58. (Diplodus.)
 1878 A, p. 211, fig. 58. (Diplodus.)
 1894 A, p. 269. (Diplodus.)

Miller, S. A. 1892 A, p. 714. (Dissodus.)

Woodward, A. S. 1889 D, p. 13. (Diplodus.)
 Coal-measures; Nova Scotia.

Dittodus compressus (Newb.).

Newberry, J. S., 1856 A, p. 99. (Diplodus.)

Cope, E. D. 1877 N, p. 53. (Diplodus.)

1881 K, p. 163. (Diplodus.)

Hay, O. P. 1900 A, p. 16.

Kindle, E. M. 1898 A, p. 484.

Miller, S. A. 1892 A, p. 714. (Dissodus.)

Newberry, J. S. 1873 A, pp. 334, 335. (Diplodus.)

1875 A, p. 44, pl. lviii, fig. 2. (Diplodus.)

1889 A, p. 214. (Diplodus.)

Newberry and Worthen 1866 A, p. 60, pl. iv, fig. 2. (Diplodus.)

St. John, O. 1872 A, p. 240, pl. iv, figs. 19a, 19b. (Diplodus.)

St. John and Worthen 1870 A, p. 432. (Diplodus.)

Woodward, A. S. 1889 D, p. 12. (Diplodus.)

Coal-measures; Indiana, Ohio.

Dittodus gibbosus (Binney).

Binney, E. W., 1841, Trans. Manchester Geol. Soc., 1, p. 169, pl. v, figs. 17-18. (Diplodus.)

Agassiz, L. 1843 B, III, p. 204, pl. 226, fig. 1. (Diplodus gibbosus; not figs. 2-5, *Ade Woodward*): p. 206, pl. 226, figs. 6-8. (Diplodus minutus.)

Cope, E. D. 1884 N, p. 573. (Diplodus.)¹

Davis, J. W. 1892 A, p. 725. (Pleuracanthus lævissimus.)

Hancock and Atthey 1868 A, p. 370. (Diplodus.)

Miller, S. A. 1892 A, p. 714. (Dissodus.)

Owen, R. 1867 B, p. 325, pl. i. (Dittodus parallelus.)²

Woodward, A. S. 1889 D, p. 10. (Diplodus.)

Coal-measures; England; Permian; Texas.

Dittodus gracilis (Newb.).

Newberry, J. S., 1856 B, p. 99. (Diplodus.)

Miller, S. A. 1892 A, p. 714. (Dissodus.)

Newberry, J. S. 1873 A, pp. 334, 336. (Diplodus.)

1875 A, p. 44, pl. lviii, figs. 3, 8a. (Diplodus.)

1889 A, p. 214. (Diplodus.)

Woodward, A. S. 1889 D, p. 13. (Diplodus.)

Coal-measures; Ohio.

Dittodus latus (Newb.).

Newberry, J. S., 1856 B, p. 99. (Diplodus.)

Destinez, P. 1898 A, p. 220.

Hay, O. P. 1900 A, p. 96.

Kindle, E. M. 1898 A, p. 484.

Miller, S. A. 1892 A, p. 714. (Dissodus.)

Newberry, J. S. 1873 A, pp. 334, 336. (Diplodus.)

1875 A, p. 44, pl. lviii, figs. 1-1b. (Diplodus.)

Newberry and Worthen 1866 A, p. 59, pl. iv, figs. 1-1c. (Diplodus.)

Woodward, A. S. 1889 D, p. 12. (Diplodus.)

Coal-measures; Indiana, Ohio, Illinois, Belgium.

Dittodus lucasi Hay.

Hay, O. P., 1900 A, p. 97, fig. 1.

Coal-measures; Illinois.

Dittodus penetrans (Dawson).

Dawson, J. W., 1860 B, suppl., p. 50, fig. 42. (Diplodus.)

1868 A, p. 211, fig. 57. (Diplodus.)

1878 A, p. 211, fig. 57. (Diplodus.)

Miller, S. A. 1892 A, p. 714. (Dissodus.)

Woodward, A. S. 1889 D, p. 14. (Diplodus.)

Coal-measures; Nova Scotia.

Dittodus priscus (Eastman).

Eastman, C. R., 1899 C, p. 490, pl. vii, figs. 1, 2. (Diplodus.)

Weller, S. 1899 A. (Diplodus.)

Devonian; Illinois.

Dittodus striatus (Eastman).

Eastman, C. R., 1899 C, p. 490, pl. vii, figs. 3, 4. (Diplodus.)

Weller, S. 1899 A. (Diplodus.)

Devonian; Illinois.

PROTODUS A. S. Woodward. Type *P. jexi* A. S. Woodward.

Woodward, A. S., 1892 A, p. 1.

Eastman, C. R. 1899 C, p. 489.

Miller, S. A. 1892 A, p. 717.

Traquair, R. H. 1893 A, p. 145.

1898 D, p. 111.

Protodus jexi (A. S. Woodward).

Woodward, A. S., 1892 A, p. 2, pl. 1, fig. 1.

Traquair, R. H. 1893 A, p. 145.

Lower Devonian; New Brunswick.

THRINACODUS St. J. and Worth. Type *T. nanus* St. J. and Worthen.

St. John and Worthen, 1875 A, p. 289.

Cope, E. D. 1884 B. (Thrinacodus.)

1884 N. (Pleuracanthus.)

Davis, J. W. 1892 A, p. 705. (Syn. of Pleuracanthus.)

Gill, T. 1884 A.

Koken, E. 1889 A, p. 87. (Pleuracanthus.)

Miller, S. A. 1889 A, p. 613.

Zittel, K. A. 1890 A, p. 90. (Syn. of Diplodus.)

Probably not distinct from *Dittodus*.

¹ Cope's Texan specimens may belong to some other species.

² See, however, Woodward, A. S. 1891 A, p. 354.

Thrinacodus bicornis Newb.

Newberry, J. S. 1879 A, p. 344.

Kindle, E. M. 1898 A, p. 485.

Woodward, A. S. 1889 D, p. 14. (Diplodus.)

Subcarboniferous (St. Louis); Indiana.

Thrinacodus duplicatus (Newb. and Worth.).

Newberry and Worthen, 1866 A, p. 61, pl. iv, figs. 3, 3a. (Diplodus.)

Destinez, F. 1898 A, p. 220. (Diplodus.)

Keyes, C. R. 1891 A, p. 264. (Thrinacodus duplicatus?)

Lesley, J. P. 1890 A, p. 1186, figures.

1896 A, pl. dlxxii.

St. John and Worthen 1875 A, p. 289. (Thrinacodus.)

Woodward A. S. 1889 D, p. 14. (Diplodus.)

Subcarboniferous (Keokuk); Illinois, Belgium.

Thrinacodus incurvus (Newb. and Worth.).

Newberry and Worthen, 1866 A, p. 62, pl. iv, figs. 4, 4a. (Diplodus.)

Lesley, J. P. 1890 A, p. 1186.

St. John and Worthen 1875 A, p. 289.

Woodward, A. S. 1889 D, p. 14. (Diplodus.)

Subcarboniferous (Keokuk); Illinois.

Thrinacodus nanus St. J. and Worth.

St. John and Worthen, 1875 A, p. 289, pl. v, figs. 1, 2.

Woodward A. S. 1889 D, p. 14. (Diplodus.)

Subcarboniferous (Kinderhook); Iowa.

DOLIODUS Traquair. Type *Diplodus problematicus* A. S. Woodward.

Traquair, R. H. 1898 A, p. 145.

Eastman, C. R. 1899 C, p. 489.

Traquair, R. H. 1893 D, p. 112.

Doliodus problematicus (A. S. Woodward).

Woodward, A. S. 1892 A, p. 2, pl. i, fig. 2. (Diplodus.)

Miller, S. A. 1892 A, p. 714. (Dissodus.)

Traquair, R. H. 1893 A, p. 145.

1893 D, p. 112.

Lower Devonian; New Brunswick.

CLADODONTIDÆ.

Brown, C. 1900 A, p. 174.

Claypole, 1893 B.

1895 C.

1896 D.

Cope, E. D. 1893 L.

1894 F, p. 427.

1896 B, p. 23.

Garman, S. 1885 A ("Cladodonta").

1885 B. ("Cladodonta.")

Gill, T. 1884 B, p. 846. (Hybodontidæ, in part.)

Nicholson and Lydekker 1889 A, p. 927.

Woodward, A. S. 1889 D, p. 16.

CLADODUS Agassiz. Type *C. mirabilis* Agassiz.

Agassiz, L. 1843 B, III, p. 196.

1844 A.

Barkas, W. J. 1873 A, p. 19.

1874 A, pp. 386, 392, 438.

Brown, C. 1900 A, p. 172.

Claypole, E. W. 1893 B.

1893 D.

1895 C.

1895 H.

Cope, E. D. 1893 L.

1893 O.

1894 F.

Davis, J. W. 1883 A, p. 372.

1886 A.

Dean, B. 1894 A.

Eastman, C. R. 1899 C, p. 489.

1900 B, p. 35.

Emery, C. 1897 B, p. 147.

Gadow, H. 1898 A, p. 5.

Garman, S. 1885 B.

Hase, C. 1879 A, p. 69.

Jaekel, O. 1892 A.

1899 A, p. 296.

Koken, E. 1889 A, p. 92.

Koninck, L. G. de 1878 A, p. 26.

Küenthal, W. 1892 A.

Lesley, J. P. 1889 A, p. 130.

McCoy, F. 1855 A, p. 619.

Miller, S. A. 1889 A, p. 590.

Newberry and Worthen 1866 A, p. 20.

Nicholson and Lydekker 1889 A, p. 927.

Pictet, F. J. 1854 A, p. 258.

Reis, O. 1896 A, p. 212.

St. John and Worthen 1875 A, p. 432.

Steinmann and Döderlein 1890 A, p. 546.

Thompson, J. 1870 A.

1871 A.

Traquair, R. H. 1888 A, p. 81.

1900 B, p. 517.

Trautschold, H. 1874 B, p. 286.

Woodward, A. S. 1884 A, p. 267.

1889 D, p. 16.

Woodward and Sherborn 1890 A, p. 34.

Zittel, K. A. 1890 A, p. 67.

Cladodus acuminatus Newb.

Newberry, J. S. 1856 B, p. 99.

Miller, S. A. 1889 A, p. 590, fig. 1110.

Newberry, J. S. 1875 A, p. 45, pl. lviii, fig. 4.

Woodward, A. S. 1889 D, p. 23.

Coal-measures; Ohio.

Cladodus alternatus St. J. and Worth.

St. John and Worthen 1875 A, p. 265, pl. II, figs. 14-18.

Koninck, L. G. de 1878 A, p. 29.

Woodward, A. S. 1889 D, pp. 22, 23.

Subcarboniferous (Kinderhook, Burlington); Iowa.

Cladodus angulatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 24, pl. I, figs. 7-8a.

Woodward, A. S. 1889 D, p. 21. (Syn. of *C. robustus*.)

Subcarboniferous (Keokuk); Illinois.

Cladodus bellifer St. J. and Worth.

St. John and Worthen 1875 A, p. 270, pl. IV, fig. 10.

Koninck, L. G. de 1878 A, p. 27, pl. III, fig. 4.

Sauvage, H. E. 1888 A, p. 47.

Woodward, A. S. 1889 D, p. 23.

Subcarboniferous (Burlington); Iowa.

Cladodus carinatus St. J. and Worth.

St. John and Worthen 1875 A, p. 279, pl. IV, figs. 6, 7.

Woodward, A. S. 1889 D, p. 23.

Coal-measures; Illinois, Iowa.

Cladodus claypolei Hay.

Hay, O. P. 1899 E, p. 783.

Claypole, 1894 A, p. 137, pl. v. (*C. magnificus*, not of Tuomey, 1858.)

Devonian (Cleveland shale); Ohio.

Cladodus concinnus Newb.

Newberry, J. S. 1875 A, p. 48, pl. I VIII, fig. 8.

1889 A, p. 170, pl. XXI.

Woodward, A. S. 1889 D, p. 23.

Devonian (Cleveland shale); Ohio.

Cladodus coniger Hay.

Hay, O. P. 1899 E, p. 783.

Miller, S. A. 1892 A, p. 714. (*C. carinatus*.)

Newberry, J. S. 1889 A, p. 103. (*C. carinatus*, not of St. John and Worthen.)

Devonian (Chemung); Pennsylvania.

Cladodus costatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 27, pl. I, figs. 13, 13a.

Woodward, A. S. 1889 D, p. 23.

Subcarboniferous (Chester); Illinois.

Cladodus deflexus Newb. and Worth.

Newberry and Worthen 1870 A, p. 355, pl. III, figs. 3, 3a.

Woodward, A. S. 1889 D, p. 23.

Subcarboniferous (Burlington); Illinois.

Cladodus eccentricus St. J. and Worth.

St. John and Worthen 1875 A, p. 272, pl. IV, fig. 4.

Keyes, C. R. 1894 A, p. 229.

Woodward, A. S. 1889 D, p. 23.

Subcarboniferous (St. Louis); Illinois, Missouri.

Cladodus elegans Newb. and Worth.

Newberry and Worthen 1870 A, p. 354, pl. IV, fig. 3.

Keyes, C. R. 1894 A, p. 229.

Woodward, A. S. 1889 D, p. 23.

Subcarboniferous (St. Louis); Missouri.

Cladodus euglypheus St. J. and Worth.

St. John and Worthen 1875 A, p. 274, pl. IV, figs. 1-3.

Keyes, C. R. 1894 A, p. 229.

Woodward, A. S. 1889 D, p. 24.

Subcarboniferous (St. Louis); Illinois, Missouri, Iowa.

Cladodus exiguus St. J. and Worth.

St. John and Worthen 1875 A, p. 261, pl. III, figs. 13-15.

Woodward, A. S. 1889 D, p. 24.

Subcarboniferous (Kinderhook); Iowa.

Cladodus exilis St. J. and Worth.

St. John and Worthen 1875 A, p. 258, pl. I figs. 1-6.

Woodward, A. S. 1889 D, p. 24.

Subcarboniferous (Kinderhook); Iowa.

Cladodus ferox Newb. and Worth.

Newberry and Worthen 1866 A, p. 26, pl. I, fig. 11.

Hambach, G. 1890 A, p. 80.

Woodward, A. S. 1889 D, p. 24.

Subcarboniferous (St. Louis); Missouri.

Cladodus fulleri St. J. and Worth.

St. John and Worthen 1875 A, p. 276, pl. IV, fig. 9.

Woodward, A. S. 1889 D, p. 24.

Coal-measures; Illinois, Iowa.

Cladodus girtyi Hay.

Hay, O. P. 1900 A, p. 98, fig. 2.

Coal-measures; Colorado.

Cladodus gomphoides St. J. and Worth.

St. John and Worthen 1875 A, p. 269, pl. IV, figs. 12-16.

Woodward, A. S. 1889 D, p. 24.

Subcarboniferous (Burlington); Iowa.

Cladodus gracilis Newb. and Worth.

Newberry and Worthen 1866 A, p. 30, pl. I, fig. 17.

Kindle, E. M. 1898 A, p. 484.

Trautschold, H. 1874 B, p. 287.

Woodward, A. S. 1889 D, p. 24.

Coal-measures; Indiana.

Cladodus grandis Newb. and Worth.

Newberry and Worthen 1866 A, p. 29, pl. I, figs. 15, 15a.

Woodward, A. S. 1889 D, p. 21.

Subcarboniferous (Chester); Illinois.

Cladodus hertzeri Newb.

Newberry, J. S. 1875 A, p. 46, pl. I VIII, fig. 5.

Woodward, A. S. 1889 D, p. 24.

Subcarboniferous (below Berea Grit); Ohio.

Cladodus intercostatus St. J. and Worth.

St. John and Worthen 1875 A, p. 267, pl. iv, fig. 11.
Woodward, A. S. 1889 D, p. 24.

Subcarboniferous (Burlington); Iowa, Illinois.

Cladodus ischypus Newb. and Worth.

Newberry and Worthen 1870 A, p. 354, pl. iv, figs. 6, 6a.

Woodward, A. S. 1889 D, p. 24.

Subcarboniferous (St. Louis); Missouri.

Cladodus keokuk St. J. and Worth.

St. John and Worthen 1875 A, p. 268.

Woodward, A. S. 1889 D, p. 24.

Subcarboniferous (Keokuk); Iowa, Illinois.

Cladodus lamnoides Newb. and Worth.

Newberry and Worthen 1866 A, p. 30, pl. i, fig. 16.
Trantschold, H. 1874 B, p. 286, text figure and pl. xxviii, fig. 3; pl. xxix, fig. 2.

Woodward, A. S. 1889 D, pp. 22, 24.

Subcarboniferous (Keokuk); Illinois. Also reported from Russia.

Cladodus magnificus Tuomey.

Tuomey, M. 1858 A, p. 39, figs. C, Cb.

Newberry, J. S. 1889 A, p. 216.

Newberry and Worthen 1866 A, p. 24, pl. i, figs. 6, 6a.

Subcarboniferous; Alabama, Illinois, Iowa.

Cladodus micropus Newb. and Worth.

Newberry and Worthen 1866 A, p. 21, pl. i, figs. 2, 2b.
Woodward, A. S. 1889 D, p. 21. (Syn. of *C. robustus*.)

Subcarboniferous (Keokuk); Illinois.

Cladodus monroei Eastman.

Eastman, C. R. 1900 B, p. 36, fig. 2.

Devonian (Hamilton); Ohio.

Cladodus mortifer Newb. and Worth.

Newberry and Worthen 1866 A, p. 22, pl. i, fig. 5.

Newberry, J. S. 1897 A, p. 235, pl. xxii, figs. 2, 2a.

St. John, O. 1870 A, p. 431.

1872 A, p. 239, pl. iii, figs. 6a-b; pl. vi, figs. 13a-13d.

Woodward, A. S. 1889 D, p. 24. (Syn. of *C. occidentalis*.)

Coal-measures; Illinois, Indiana, Iowa, Nebraska, Kansas.

Cladodus newmani Tuomey.

Tuomey, M. 1858 A, p. 39, fig. B.

Newberry, J. S. 1889 A, p. 216.

Subcarboniferous; Alabama.

Cladodus occidentalis Leidy.

Leidy, J. 1859 C, p. 8.

1873 B, pp. 311, 352, pl. xvii, figs. 4-6.

Woodward, A. S. 1889 D, p. 24.

Coal-measures; Kansas.

Cladodus pandatus St. J. and Worth.

St. John and Worthen 1875 A, p. 278, pl. iv, fig. 8.

Woodward, A. S. 1889 D, p. 25.

Coal-measures; Illinois.

Cladodus parvulus Newb.

Newberry, J. S. 1875 A, p. 48, pl. lviii, figs. 9, 9a.

Woodward, A. S. 1889 D, p. 25.

Devonian; Ohio.

Cladodus pattersoni Newb.

Newberry, J. S. 1875 A, p. 47, pl. lviii, figs. 6, 6a.

1889 A, p. 171.

Woodward, A. S. 1889 D, p. 25.

Subcarboniferous (Waverly); Ohio, Kentucky.

Cladodus politus Newb. and Worth.

Newberry and Worthen 1866 A, p. 27, pl. i, fig. 12.

Woodward, A. S. 1889 D, p. 25.

Subcarboniferous (Chester); Illinois.

Cladodus prænuntius St. J. and Worth.

St. John and Worthen 1875 A, p. 270, pl. iv, fig. 17.

Woodward, A. S. 1889 D, p. 25.

Subcarboniferous (Burlington); Iowa.

Cladodus raricostatus St. J. and Worth.

St. John and Worthen 1875 A, p. 271, pl. iv, fig. 18.

Woodward, A. S. 1889 D, p. 25.

Subcarboniferous (Keokuk); Iowa.

Cladodus rivi-petrosi Clappole.

Clappole, E. W. 1893 B, p. 323, pl. viii.

1893 D, p. 445, fig. 1.

Devonian (Cleveland shale); Ohio.

Cladodus robustus Newb. and Worth.

Newberry and Worthen 1866 A, p. 20, pl. i, figs. 1, 1a.

Woodward, A. S. 1889 D, pp. 21, 25. (*C. robustus*, *micropus*, *angulatus*, *turritus*.)

Subcarboniferous (Keokuk); Illinois.

Cladodus romingeri Newb.

Newberry, J. S. 1875 A, p. 49.

1889 A, p. 177, pl. xxvii, fig. 10.

Woodward, A. S. 1889 D, p. 25.

Subcarboniferous (Waverly); Michigan.

Cladodus spinosus Newb. and Worth.

Newberry and Worthen 1866 A, p. 22, pl. i, figs. 3, 3a.

Dana, J. D. 1896 A, p. 644, fig. 1021.

Hambach, G. 1890 A, p. 80.

Woodward, A. S. 1889 D, p. 22.

Subcarboniferous (St. Louis); Missouri.

Cladodus splendens Newb.

Newberry, J. S. 1897 A, p. 284, pl. xxii, fig. 1.

Subcarboniferous (Kinderhook); Iowa.

Cladodus springeri St. J. and Worth.

St. John and Worthen 1875 A, p. 259, pl. ii, figs. 1-13.

Destinez, P. 1896 A, p. 222.

Koninck, L. G. de 1878 A, p. 28, pl. iii, figs. 5, 6.

Sauvage, H. E. 1888 A, p. 47.

Woodward, A. S. 1889 D, p. 22.

Subcarboniferous (Kinderhook); Iowa. Also reported from Belgium.

Cladodus stenopus Newb. and Worth.

Newberry and Worthen 1866 A, p. 23, pl. 1, figs. 4, 4a.

Woodward, A. S. 1889 D, p. 25.

Subcarboniferous (St. Louis); Illinois.

Cladodus striatus Agassiz.

Agassiz, L. 1843 B, iii, p. 197 pl. xxii b, figs. 14-17.

Davis, J. W. 1883 A, p. 375, pl. xlix, figs. 12, 13 (C. striatus); p. 374, pl. xlix, figs. 10, 11 (C. elongatus); p. 379, pl. xlix, fig. 19 (C. curtus); p. 380, pl. xlix, fig. 20 (C. hornel).

Eastman, C. R. 1900 B, p. 36.

Traquair, R. H. 1888 A, p. 81.

Woodward, A. S. 1889 D, p. 19.

Subcarboniferous; England, Ireland: Devonian (Corniferous); Ohio (if correctly identified).

Cladodus subulatus Newb.

Newberry, J. S. 1875 A, p. 47, pl. lviii, fig. 7.

Woodward, A. S. 1889 D, p. 25.

Devonian (Cleveland shale); Ohio.

Cladodus succinctus St. J. and Worth.

St. John and Worthen 1875 A, p. 265, pl. iii, figs. 8-12.

Koninck, L. G. de 1878 A, p. 29.

Woodward, A. S. 1889 D, pp. 22, 25.

Subcarboniferous (Kinderhook); Iowa.

Cladodus terrelli Newb.

Newberry, J. S. 1889 A, p. 170, pl. xxvii, figs. 5-7.

Dean, B. 1894 A, p. 107. (C. terrelli?).

Devonian (Cleveland shale); Ohio.

Cladodus tumidus Newb.

Newberry, J. S. 1889 A, p. 172, pl. xxvii, figs. 8-9.

Devonian (Cleveland shale); Ohio.

Cladodus turritus Newb. and Worth.

Newberry and Worthen 1866 A, p. 28, pl. 1, fig. 14.

Woodward, A. S. 1889 D, p. 21. (Syn. of C. robustus).

Subcarboniferous (Keokuk); Illinois.

Cladodus vanhornei St. J. and Worth.

St. John and Worthen 1875 A, p. 273, pl. iv, fig. 5.

Woodward, A. S. 1889 D, p. 25.

Subcarboniferous (St. Louis); Illinois.

Cladodus wachsmuthi St. J. and Worth.

St. John and Worthen 1875 A, p. 268, pl. iii, figs. 1-7.

Davis, J. W. 1883 A, p. 376.

Koninck, L. G. de 1878 A, p. 29.

Woodward, A. S. 1889 D, pp. 22, 26. (C. wachsmuthi.)

Subcarboniferous (Kinderhook); Iowa.

Cladodus zygodus Newb. and Worth.

Newberry and Worthen 1866 A, p. 25, pl. i, figs. 9, 9a.

Woodward, A. S. 1889 D, p. 26.

Subcarboniferous (Chester); Illinois.

PHŒBODUS St. J. and Worth. Type *P. sophiæ* St. J. and Worth.

St. John and Worthen 1875 A, p. 251.

Eastman, C. R. 1899 C, p. 489.

Garman, S. 1885 B, p. 31 (Pternodus, type *P. springeri*; not of Owen, 1867).

Miller, S. A. 1889 A, p. 588 (Bathychilodus); p. 606 (Phœbodus).

St. John and Worthen 1875 A, p. 252. (Bathychilodus, type *B. macisaacii* St. J. and Worth.)

Woodward, A. S. 1889 D, p. 27.

Phœbodus macisaacii (St. J. and Worth.).

St. John and Worthen 1875 A, p. 252, pl. i, figs. 12-13d. (Bathychilodus.)

Miller, S. A. 1889 A, p. 588, fig. 1103. (Bathychilodus.)

Woodward, A. S. 1889 D, p. 27.

Middle Devonian; Iowa.

Phœbodus politus Newb.

Newberry, J. S. 1889 A, p. 173, pl. xxvii, figs. 27-28a.

Eastman, C. R. 1899 C, p. 491, pl. vii, fig. 5.

Devonian (Cleveland shale); Ohio, Illinois.

Phœbodus sophiæ St. J. and Worth.

St. John and Worthen 1875 A, p. 251, pl. i, figs. 14-14d.

Lesley, J. P. 1889 A, p. 635, figures.

Miller, S. A. 1889 A, p. 606, fig. 1158.

Newberry, J. S. 1889 A, p. 174.

Woodward, A. S. 1889 D, p. 27.

Middle Devonian, Iowa.

Phœbodus springeri (St. J. and Worth.).

St. John and Worthen 1875 A, p. 255, pl. i, figs. 7-7d. (Pristicladodus.)

Garman, S. 1885 B, p. 31. (Pternodus.)

Lesley, J. P. 1889 A, p. 745, figures. (Pristicladodus springeri, P. armatus.)

Miller, S. A. 1889 A, p. 608, fig. 1162. (Pristicladodus.)

St. John and Worthen 1875 A, p. 256, pl. i, figs. 8-11c. (Pristicladodus springeri, P. armatus.)

Woodward, A. S. 1889 D, p. 27. (Phœbodus.)

Subcarboniferous (Kinderhook); Iowa.

LAMBODUS St. J. and Worth. Type *L. costatus* St. J. and Worth.

St. John and Worthen 1875 A, p. 280.

Miller, S. A. 1889 A, p. 600.

Nicholson and Lydekker 1889 A, p. 928.

Woodward, A. S. 1889 D, p. 27.

Lambdodus calceolus St. J. and Worth.

St. John and Worthen 1875 A, p. 281, pl. v., fig. 5.

Keyes, C. R. 1894 A, p. 230.

St. John and Worthen 1875 A, p. 282, pl. i, figs. 6-6c (var. *robustus*).

Woodward, A. S. 1889 D, p. 27 (L. calceolus and L. *robustus*).

Subcarboniferous (Burlington); Iowa, Illinois; (Keokuk); Illinois, Missouri, Iowa.

Lambdodus costatus St. J. and Worth.

St. John and Worthen 1875 A, p. 280, pl. v, fig. 8.

Keyes, C. R. 1894 A, p. 229.

Miller, S. A. 1889 A, p. 600, fig. 1140.

Subcarboniferous (Burlington, Keokuk); Iowa, Illinois, Missouri.

Lambdodus hamulus St. J. and Worth.

St. John and Worthen 1875 A, p. 283, pl. v, figs. 26a-26c. (L. *hamatus*, on explanation of plate.)

CARCHAROPSIS Agassiz. Type *C. prototypus* Agassiz = *Pristicladodus dentatus* McCoy.

Agassiz, L. 1843 B, iii, p. 313. (Definition in footnote.)

Davis, J. W. 1883 A, p. 381, p. 384. (*Pristicladodus*.)

Eichwald, E. 1860 A, p. 1604. (*Dicrenodus*.)

Günther, A. 1860 A, p. 319.

Hasse, C. 1878 A, p. 168. (*Pristicladodus*.)

McCoy, F. 1855 A, p. 642.

Miller, S. A. 1889 A, p. 589 (*Carcharopsis*); p. 608. (*Pristicladodus*).

1892 A, p. 714. (*Dicrenodus*.)

Nicholson and Lydekker 1889 A, p. 944 (*Carcharopsis*); 928 (*Dicrenodus*).

Pictet, F. J. 1854 A, p. 239.

Romanovsky, G. 1868 A, p. 408, pl. viii. (*Dicrenodus*, type *D. okensis*.)

St. John and Worthen 1875 A, p. 253 (*Pristicladodus*); p. 254 (*Carcharopsis*).

Woodward, A. S. 1889 D, p. 27.

Subcarboniferous (Chester); Illinois.

Lambdodus reflexus St. J. and Worth.

St. John and Worthen 1875 A, p. 284, pl. v, figs. 25, 25a.

Woodward, A. S. 1889 D, p. 27.

Subcarboniferous (Chester); Illinois.

Lambdodus transversus St. J. and Worth.

St. John and Worthen 1875 A, p. 282, pl. v, figs. 4a, 4b.

Woodward, A. S. 1889 D, p. 27.

Subcarboniferous (St. Louis); Illinois.

Woodward, A. S. 1886 A, p. 268.

1889 D, p. 28. (*Dicrenodus*.)

Woodward and Sherborn 1890 A, p. 63. (*Dicrenodus*.)

Zittel, K. A. 1890 A, p. 81 (*Carcharopsis*); p. 66 (*Pristicladodus*).

Carcharopsis wortheni Newb.

Newberry and Worthen 1866 A, p. 69, pl. iv, figs. 14, 14a.

Dana, J. D. 1886 A, p. 644, fig. 1020.

Davis, J. W. 1883 A, p. 383. (*Pristicladodus*.)

Miller, S. A. 1889 A, p. 589, fig. 1106.

St. John and Worthen 1875 A, p. 255.

Woodward, A. S. 1889 D, p. 29. (*Dicrenodus*.)

Subcarboniferous; Alabama.

HYBOCLADODUS St. J. and Worth. Type *H. plicatilis* St. J. and Worth.

St. John and Worthen 1875 A, p. 284.

Miller, S. A. 1889 A, p. 600.

Nicholson and Lydekker 1889 A, p. 928.

Woodward, A. S. 1889 D, p. 29.

Hybocladodus compressus (Newb. and Worth).

Newberry and Worthen 1866 A, p. 78, pl. v, fig. 1. (*Helodus*).¹

St. John and Worthen 1875 A, p. 287, pl. v, fig. 8.

Woodward, A. S. 1889 D, p. 29.

Subcarboniferous (Burlington); Iowa.

Hybocladodus intermedius St. J. and Worth.

St. John and Worthen 1875 A, p. 287, pl. v, fig. 11.

Woodward, A. S. 1889 D, p. 29.

Subcarboniferous (Keokuk); Iowa, Illinois.

Hybocladodus nitidus St. J. and Worth.

St. John and Worthen 1875 A, p. 288, pl. v, fig. 7.

Woodward, A. S. 1889 D, p. 29.

Subcarboniferous (Chester); Illinois.

Hybocladodus plicatilis St. J. and Worth.

St. John and Worthen 1875 A, p. 286, pl. v, fig. 9.

Miller, S. A. 1889 A, p. 600.

Woodward, A. S. 1889 D, p. 30.

Subcarboniferous (Burlington); Iowa.

Hybocladodus tenuicostatus St. J. and Worth.

St. John and Worthen 1875 A, p. 286, pl. v, fig. 10.

Woodward, A. S. 1889 D, p. 30.

Subcarboniferous (Keokuk); Illinois, Iowa.

SYMMORIUM Cope. Type *S. reniforme* Cope.

Cope, E. D. 1893 L.

1894 F, p. 427.

Symmorium reniforme Cope.

Cope, E. D. 1893 L.

Brown, C. 1900 A, p. 171, fig. 6c.

Cope, E. D. 1894 F, p. 427, pl. xviii, figs. 1-5.

Coal-measures; Illinois.

¹ Not *H. compressus* Newberry and Worthen 1870 A, p. 860.

MONOCLADODUS Claypole. Type *M. clarki* Claypole.

Claypole, E. W. 1893 B, p. 329.

1893 G, p. 619.

Cope, E. D. 1893 O. (Syn. of *Styptobasis*.)

1894 F, p. 434.

Monocladodus clarki Claypole.

Claypole, E. W. 1893 B, p. 329, pl. viii.

1893 D, p. 447, fig. 2.

Claypole, E. W. 1893 G, p. 619, pl. xi, fig. 2.

Cope, E. D. 1893 O.

Devonian (Cleveland shale); Ohio.

Monocladodus pinnatus Claypole.

Claypole, E. W. 1893 B, p. 330.

Cope, E. D. 1893 O.

Devonian (Cleveland shale); Ohio.

STYPTOBASIS Cope. Type *S. knightiana* Cope.

Cope, E. D. 1891 B, p. 447.

1893 O.

Styptobasis aculeata Cope.

Cope, E. D. 1894 F, p. 434, pl. xx, figs. 1-5.

Coal-measures; Illinois.

Styptobasis knightiana Cope.

Cope, E. D. 1891 B, p. 447, pl. xxviii, fig. 1.

Knight, W. C. 1899 A, p. 374.

Woodward, A. S. 1892 B, p. 233.

Permian; Nebraska.

Order PLEUROPTERYGIA Dean.

Dean, B. 1894 A, p. 110.

| Woodward, A. S. 1898 B, p. 29. (*Pleuropterygii*.)

CLADOSELACHIDÆ.

Dean, B. 1894 A, p. 111.

1896 A.

1896 C.

CLADOSELACHE Dean. Type *Cladodus fylleri* (Newb.).

Dean, B. 1893 C, p. 124.

Brown, C. 1900 A, p. 172.

Case, E. C. 1898 B, p. 402.

Cope, E. D. 1894 F, p. 429.

Dean, B. 1894 A.

1896 A.

1896 B.

1896 C.

Jaekel, O. 1892 A. (Syn. of *Cladodus*.)

Reis, O. M. 1896 A.

Traquair, R. H. 1900 B, p. 516.

Woodward, A. S. 1892 E. (*Cladodus*.)

1896 B, p. 40.

1896 B, p. 30.

Cladoselache clarki (Claypole.)

Claypole, E. W. 1893 B, p. 327, pl. vii. (*Cladodus*.)

Dana, J. D. 1896 A, p. 619, fig. 976. (*Cladodus*.)

Claypole, E. W. 1896 A, pls. i, ii. (*Cladodus*.)

Dean, B. 1896 B, p. 677, fig. 7.

Devonian (Cleveland shale); Ohio.

Cladoselache fylleri (Newb.).

Newberry, J. S. 1889 A, pls. xli, xlix, figs. 2, 3; no description. (*Cladodus*.)

Claypole, E. W. 1893 B, p. 325. (*Cladodus*.)

1893 G, p. 616. (*Cladodus*.)

1896 H, p. 191. (*Cladodus*.)

Dana, J. D. 1896 A, p. 619, fig. 977.

Dean, B. 1894 A.

1894 B, p. 115, pl. ii, figs. 1, 2.

1896 A, p. 79, fig. 86.

1896 B.

Jaekel, O. 1892 A, p. 91. (*Cladodus*.)

Mollier, S. 1893 A, p. 118. (*Cladodus*.)

Woodward, A. S. 1896 B, p. 40.

1896 B, p. 31, fig. 24.

Devonian (Cleveland shale); Ohio.

Cladoselache kepleri (Newb.).

Newberry, J. S. 1888 D, p. 178. (*Cladodus*.)

Claypole, E. W. 1893 B, p. 327, pl. vii. (*Cladodus*.)

1893 G, p. 616. (*Cladodus*.)

Dean, B. 1894 A, p. 103.

1896 B, p. 676, fig. 5.

Jaekel, O. 1892 A, p. 82. (*Cladodus*.)

Newberry, J. S. 1889 A, pls. xli, xlv. (*Cladodus*.)

Woodward, A. S. 1889 D, p. 457. (*Cladodus*.)

Devonian (Cleveland shale); Ohio.

Cladoselache newberryi Dean.

Dean, B. 1894 B, pl. i, figs. 3-8.

Cope, E. D. 1896 B. (*Cladodus*.)

Dean, B. 1896 B, p. 677, fig. 5.

Woodward, A. S. 1896 B, p. 41, fig. 2.

Subcarboniferous (Waverly); Ohio.

Cladoselache sinuatus (Claypole.)

Claypole, E. W. 1893 B, p. 327, pl. vii. (*Cladodus*.)

1893 G, p. 618, pl. xliii, fig. 6 (*Cladodus*?

sinuatus); explan. pl. xliii (*Cladodus ro-*

tundiceps).

Dana, J. D. 1896 A, p. 619, fig. 976. (*Cladodus*.)

Devonian (Cleveland shale); Ohio.

Order ACANTHODII Owen.

- Owen, R. 1860 E, p. 130.
 Cope, E. D. 1891 N, pp. 15, 18.
 1893 L.
 1896 B, p. 22.
 Fritsch, A. 1896 A (1893), p. 49. ("Tribus Acanthodides.")
 Gadow, H. 1898 A, p. 6. (Acanthodi.)
 Haeckel, E. 1896 A, pp. 236, 246. (Acanthodini.)
 Huxley, T. H. 1861 B, p. 37. (Acanthodidae.)
 Jaekel, O. 1896 B, p. 126.
 Woodward, A. S. 1891 A, pp. xi, 1.
 1896 B, p. 35.

ACANTHOËSSIDÆ.¹

- Agassiz, L. 1844 B, p. 32. ("Acanthodiens.")
 1846 A, p. 45. ("Acanthodiens.")
 Cope, E. D. 1893 L.
 Davis, J. W. 1894 A, p. 249.
 Dean, B. 1896 A.
 Egerton, P. G. 1866 A.
 Fritsch, A. 1896 A (1893), p. 49.
 Günther, A. 1861 A, p. 686. (Acanthodini.)
 Huxley, T. H. 1861 B, p. 37.
 1872 A, p. 129.
 Jaekel, O. 1892 A.
 Klaatsch, H. 1890 A, p. 149.
 Lütken, C. 1873 A, p. 41.
 Newberry, J. S. 1873 A, p. 258.
 Nicholson and Lydekker 1889 A, p. 966.
 Pictet, F. J. 1864 A, p. 188. ("Acanthodiens.")
 Powrie, J. 1864 B, p. 417.
 Reis, O. M. 1892 A.
 1896 B.
 1896 A.
 1897 A, p. 87.
 Rohon, V. 1893 A, p. 20.
 Steinmann and Döderlein 1890 A, p. 564.
 Traquair, R. H. 1881 A, p. 18.
 1891 A, p. 124.
 1894 A.
 Woodward, A. S. 1891 A, p. 2.
 1896 B, p. 39.
 Zittel, K. A. 1890 A, p. 165.

ACANTHOËSSUS² Agassiz.Type *A. browni* Agassiz.

- Agassiz, L. 1832, Leonhard and Brown's Zeitschr. f. Mineral., p. 149.
 By the following authors this genus is referred to by the name *Acanthodes*:
 Agassiz, L. 1843 B (1834), li, pt. i, pp. 3, 19. (Acanthoëssus changed to Acanthodes.)
 1844 A.
 1844 B, p. 32.
 Beyrich, E. 1848 A, p. 24. (Holacanthodes.)
 Davis, J. W. 1894 A, p. 249.
 Dean, B. 1896 A.
 Egerton, P. G. 1861 B.
 Fritsch, A. 1896 A (1893), p. 58.
 Gadow, H. 1898 A, p. 6.
 Jaekel, O. 1899 B, p. 56, figs. 1, 2.
 Kner, R. 1868 A, p. 290.
 Miller, S. A. 1889 A, p. 586.
 Nicholson and Lydekker 1889 A, p. 966.
 Pictet, F. J. 1864 A, p. 189.
 Quenstedt, F. A. 1862 A, p. 191.
 1885 A, p. 302.
 Reis, O. M. 1896 A.
 Roemer, F. 1857 A, p. 65.
 Rohon, V. 1889 A.
 1893 A, pp. 20, 56.
 Steinmann and Döderlein 1890 A, p. 564.
 Traquair, R. H. 1888 B, p. 511. (Mesacanthus.)
 1893 B, p. 177.
 1894 A.
 Woodward, A. S. 1891 A, p. 1.
 1896 B, p. 39.
 Zittel, K. A. 1890 A, p. 166.
 Acanthoëssus *affinis* (Whiteaves).
Whiteaves, J. F. 1887 A, p. 107. (Acanthodes mitchelli?, with *A. affinis* as alternative.)
 Dana, J. D. 1896 A, p. 620, fig. 978. (Acanthodes.)
 Traquair, R. H. 1890 A, p. 16. (Mesacanthus *affinis*.)
 Whiteaves, J. F. 1883 A, p. 354. (Acanthodes mitchelli?.)
 1888 B, p. 160. (Acanthodes mitchelli?.)
 1889 A, p. 91, pl. v, figs. 1-1f. (Acanthodes *affinis*.)
 Woodward, A. S. 1891 A, p. 14. (Acanthodes *affinis*.)
 Upper Devonian; Quebec, Canada.
 Acanthoëssus *concinus* (Whiteaves).
Whiteaves, J. F. 1887 A, p. 107, pl. x, figs. 1, 1a. (Acanthodes.)
 Traquair, R. H. 1890 A, p. 15. (Acanthodes.)
 Whiteaves, J. F. 1889 A, pl. v, fig. 2. (Acanthodes.)
 Woodward, A. S. 1891 A, p. 10. (Acanthodes.)
 Upper Devonian; Quebec, Canada.
 Acanthoëssus ? *pristis* (Clarke).
 Clarke, J. M. 1885 A, p. 42. (Acanthodes?).
 Woodward, A. S. 1891 A, p. 15. (Acanthodes?)
 Devonian (Genesee); New York.
 Acanthoëssus *semistriatus* (A. S. Woodward).
 Woodward, A. S. 1892 A, p. 3, pl. 1, fig. 3. (Acanthodes.)
 Lower Devonian; New Brunswick.

¹ By most authors this family is called *Acanthodidae*. The change is necessitated by adopting the earlier generic name *Acanthoëssus* for *Acanthodes*.

² The law of priority, which lies at the base of all codes of nomenclature, requires the restoration of the name first given by Agassiz to this genus.

CHEIRACANTHUS Agassiz. Type *C. muchisoni* Agassiz.

- Agassiz, L. 1843 B (1835), II, pt. 1, p. 125.
 1844 B, p. 39.
 Gadow, H. 1896 A, p. 6.
 McCoy, F. 1855 A, p. 582.
 Pictet, F. J. 1854 A, p. 189.
 Reiss, O. M. 1896 A.
 Traquair, R. H. 1893 A.
 Woodward, A. S. 1891 A, p. 16.
 Woodward and Sherborn, 1890 A, p. 29.
 Zittel, K. A. 1890 A, p. 167.

Cheiracanthus costellatus Traquair.

- Traquair, R. H. 1884 B, p. 3, pl. II. (Ctenacanthus.)
 Garman, S. 1884 C, p. 494. (Ctenacanthus.)
 Traquair, R. H. 1888 A, p. 81. (Ctenacanthus costellatus?)
 1893 A, p. 146.
 1893 D, p. 112.
 Woodward, A. S. 1889 D, p. 242. (Sphenacanthus.)
 Subcarboniferous; Scotland: Devonian: Province of Quebec, Canada (if correctly identified).

DIPLACANTHIDÆ.

- Cope, E. D. 1891 N, p. 19.
 Traquair, R. H. 1894 A.

- Woodward, A. S. 1891 A, p. 22.

DIPLACANTHUS Agassiz. Type *D. crassissimus* Duff.

- Agassiz, L. 1844 B, pp. 34, 40.
 Dean, B. 1894 A, p. 110.
 Egerton, P. G. 1861 B.
 Gadow, H. 1896 A, p. 6.
 McCoy, F. 1855 A, p. 584.
 Pictet, F. J. 1854 A, p. 191.
 Reiss, O. M. 1896 A, p. 167.
 Traquair, R. H. 1888 B, p. 512. (Rhadinacanthus, type *R. longispinis*.)
 1891 A, p. 125.
 1894 A.
 Woodward, A. S. 1891 A, p. 23.
 Woodward and Sherborn, 1890 A, p. 65.
 Zittel, K. A. 1890 A, p. 167.

Diplacanthus crassissimus Duff.

- Duff, P. 1842, Geol. Moray, p. 71, pl. x, fig. 2. (Diplocanthus.)
 Agassiz, L. 1844 B, pp. 34, 41, pl. xiv, figs. 1-5 (D. striatus); pp. 34, 42, pl. xiii, figs. 3, 4 (D. striatus); pp. 34, 43, pl. xiii, figs. 1, 2; pl. xiv, figs. 6, 7 (D. crassispinus).
 McCoy, F. 1848 C, p. 301. (D. gibbus.)
 1855 A, p. 584, pl. II B, fig. 4. (D. gibbus.)
 Traquair, R. H. 1888 B, p. 512. (D. striatus.)
 Whiteaves, J. F. 1881 A, p. 495. (D. striatus ?.)
 1883 A, p. 354. (D. ?)
 1883 B, p. 160. (D. "sp. undt.")
 1883 D, p. 29. ("Diplacanthus.")
 Woodward, A. S. 1891 A, p. 24.
 Devonian; Scotland, Canada?

CLIMATIUS Agassiz. Type *C. reticulatus* Agassiz.

- Agassiz, L. 1844 B, p. 119.
 Egerton, P. G. 1861 B, p. 28.
 Nicholson and Lydekker 1889 A, p. 968.
 Pictet, F. J. 1854 A, p. 298.
 Powrie, J. 1864 B, p. 420 (Climatius); p. 425, pl. xx (Euthacanthus, type *E. macnicoli*).
 Woodward, A. S. 1891 A, p. 28.
 Woodward and Sherborn, 1890 A, p. 36.
 Zittel, K. A. 1890 A, p. 168.

Climatius? latispinosus (Whiteaves).

- Whiteaves, J. F. 1881 E, p. 99. (Ctenacanthus.)
 Traquair, R. H. 1890 A, p. 21. (Climatius.)
 Whiteaves, J. F. 1883 A, p. 355. (Ctenacanthus.)
 1883 B, p. 164. (Ctenacanthus.)
 1890 A, p. 95, pl. x, figs. 3-3b. (Ctenacanthus.)
 Woodward, A. S. 1889 G, p. 188. (Climatius.)
 1891 A, p. 33. (Climatius?)
 1892 A, p. 3. (Climatius.)
 Lower Devonian; New Brunswick.

Superorder EUSELACHII,¹ *nom. nov.*

Order SELACHA Bonaparte.

- Bonaparte, C. L., 1832-1841, Iconograph. Fauna Ital., III, Introd.

The form *Selachii* of this word is employed by the following writers unless otherwise indicated. The content of the term also varies greatly with the different authors.

- Agassiz, L. 1843 B (1838), III, p. 78. ("Placoides.")
 Beard, J. 1890 A.

- Cope, E. D. 1872 C, p. 326.

- 1877 O, p. 41.
 1878 A, p. 292.
 1884 HH.
 1885 G.
 1889 R, p. 854.
 1891 N, p. 15.
 1896 B, p. 24.

¹This superordinal name is employed to include all *Elasmobranchii* except the *Ichthyotomi*. The living sharks and rays may be regarded as constituting the types of the group. It is quite probable that a more complete knowledge of the Paleozoic families will cause them to be removed from association with the yet living families.

Dohrn, A. 1886 A.
 Emery, C. 1897 B.
 Gadow, H., 1898 A, p. 5.
 Garman, S. 1884 C.
 Gegenbaur, C. 1896 B.
 Gill, T. 1884 B.
 1884 C.
 Goeppert, E. 1895 A.
 1895 B.
 Günther, A. 1881 A, p. 685.
 Haeckel, E., 1895 A, p. 242. (Plagiostomi.)
 Hasse, C. 1893 A.
 Haswell, W. A. 1884 A, p. 112. (Selachoidel.)
 Howes, G. B. 1890 A.
 Jaekel, O. 1890 A.
 1890 C.
 1894 A.
 Jordan and Evermann 1896 A, p. 15.
 Kehner, F. A. 1876 A.
 Klaatsch, H. 1894 A.

Köstlin, O. 1844 A, p. 437. ("Haifische.")
 Leidy, J. 1871 C, p. 369.
 Mayer, P. 1886 A.
 Mollier, S. 1893 A, p. 6.
 Newberry and Worthen 1866 A.
 Owen, R. 1866 A, p. 13.
 Parker, W. K. 1878 A.
 St. John and Worthen 1875 A.
 1883 A.
 Sagemehl, M. 1883 A, p. 224.
 Steinmann and Döderlein 1890 A, p. 543.
 Tomes, C. S. 1898 A, p. 240. (Selachia.)
 Stephan, P. 1900 A. ("Sélaciens.")
 Wiedersheim, R. 1889 A, p. 428.
 Woodward, A. S. 1886 A.
 1889 D, p. 30.
 1892 G.
 1895 B.
 1898 B, p. 39.
 Zittel, K. A. 1890 A, p. 60.

Suborder SQUALI.¹

Duméril, A. 1865 A, p. 309. ("Squales ou Pleurotrèmes.")
 Gegenbaur, C. 1896 A.
 Gibbs, R. W. 1843 A.
 1847 A.
 1848 B.
 Gill, T. 1861 A, p. 23.
 1862 A.
 Günther, A. 1870 A, p. 353. (Selachoidel.)
 1890 A, p. 314. (Selachoidel.)
 Haeckel, E. 1895 A, p. 242. (Squalacel.)

Müller, J. 1846 C, p. 203. (Squalidae.)
 Müller and Henle 1841 A.
 Owen, R. 1845 B, p. 28. ("Squaloids.")
 1847 B, p. 255.
 1860 E, p. 106. (Squalidae.)
 Pictet, F. J. 1854 A, p. 234. ("Squalidiens.")
 Stannius, H. 1854 A. (Squalidae.)
 Steinmann and Döderlein 1890 A, p. 545.
 Woodward, A. S. 1889 D, pp. xxxix, 157. (Asterospondyli.)

Superfamily PETALODONTOIDEA, *nom. nov.*

PETALODONTIDÆ.

Newberry and Worthen, 1866 A, p. 31.
 Cope, E. D. 1891 A, p. 16.
 1896 B, p. 24.
 Davis, J. W. 1883 A, pp. 331, 483.
 Jaekel, O. 1895 B.
 1896 A, p. 49 (with subfamilies Janassinae, Polyrhizodontinae, and Pristodontinae.)
 1899 A, p. 258.
 1900 A, p. 147.

Koninck, L. G. de 1878 A, p. 29.
 Newberry, J. S. 1889 A, p. 185.
 Newberry and Worthen 1866 A, p. 46.
 Nicholson and Lydekker 1889 A, p. 927.
 Traquair, R. H. 1888 A, p. 85.
 Woodward, A. S. 1885 B, pp. 156, 226.
 1889 D, p. 35.
 1898 B, p. 60.
 Zittel, K. A. 1890 A, p. 96.

JANASSA Münster. Type *Trilobites bituminosus* Schlotheim.

Münster, G. 1839, Beiträge Petrefakt., pt. i, p. 67.
 Agassiz, L. 1843 B, III, p. 375.
 Atthey, T. 1868 B.
 Barkas, T. P. 1868 A. (Climaxodus.)
 Cope, E. D. 1877 N, p. 52. (Strigilina, with *S. longiformis* Cope = *J. strigilina* Cope as type.)
 Davis, J. W. 1882 B, p. 60.
 Hancock and Atthey 1869 A.
 Hancock and Howes 1870 A.
 Jaekel, O. 1894 A, p. 65.
 1895 B, p. 201.
 1896 A, p. 43.
 1899 A, p. 258, pls. xiv, xv, and text figs.

McCoy, F. 1848 A, p. 123 (Climaxodus, with *C. imbricatus* as type.)
 1855 A, p. 620.
 Miller, S. A. 1889 A, p. 591 (Climaxodus); p. 600. (Janassa.)
 Nicholson and Lydekker 1889 A, p. 929.
 Pictet, F. J. 1854 A, p. 270 (Climaxodus); p. 282 (Janassa.)
 Woodward, A. S. 1885 B, p. 227.
 1888 E.
 1889 D, p. 34.
 Zittel, K. A. 1890 A, p. 98.

¹ Additional literature bearing on this group may be looked for under the heads "Elasmobranchii" and "Selachii."

Janassa brevis (Newb.).

Newberry. *J. S.* 1866 B, p. 100. (Climaxodus.)
 Miller, S. A. 1889 A, p. 591.
 Woodward, A. S. 1889 D, p. 39. (Janassa.)
 Coal-measures; Ohio.

Janassa gurleiana Cope.

Cope. *E. D.* 1877 E, p. 191. (Strigilina.)
 Case, E. C. 1900 A, p. 700, pl. i, figs. 2a-2c. (*J. gurleyana*.)
 Cope, E. D. 1881 K, p. 163.
 1888 BB, p. 285.
 Woodward, A. S. 1889 D, p. 39.
 Permian; Illinois.

Janassa ordiana Cope.

Cope, E. D. 1881 K, p. 163.
 1888 BB, p. 285.
 Woodward, A. S. 1889 D, p. 39.
 Permian; Texas.

Janassa strigilina Cope.

Cope, E. D. 1881 K, p. 163.
 Case, E. C. 1900 A, p. 699, pl. i, figs. 1a-1c.
 Cope, E. D. 1877 E, p. 191. (Strig. *linguaeformis*.)
 1877 N, p. 52. (Strigilina *linguaeformis* Cope, not of Atthey.)
 1888 BB, p. 285.
 Miller, S. A. 1889 A, p. 600. (*J. linguaeformis*.)
 Woodward, A. S. 1889 D, p. 38.
 Permian; Illinois.

PELTODUS Newb. and Worth. Type *P. unguiformis* Newb. and Worth.

Newberry and Worthen 1870 A, p. 362.
 Jaekel, O. 1899 A, p. 278.
 Miller, S. A. 1889 A, p. 606.
 St. John and Worthen 1875 A, p. 409.
 Woodward, A. S. 1889 D, pp. 34, 39. (Syn. of *Janassa*.)

Peltodus ? plicomphalus St. J. and Worth.

St. John and Worthen 1875 A, p. 411, pl. xlii, fig. 9.
 Lesley, J. P. 1889 A, p. 614, figures.
 Woodward, A. S. 1889 D, p. 39. (*Janassa*.)
 Subcarboniferous (Chester); Illinois.

Peltodus pulvinulus Newb. and Worth.

Newberry and Worthen 1870 A, p. 362.
 Subcarboniferous; Illinois.

Peltodus quadratus St. J. and Worth.

St. John and Worthen 1875 A, p. 410, pl. xlii, figs. 6, 7.
 Keyes, C. R. 1894 A, p. 232.
 Lesley, J. P. 1889 A, p. 614, figures.
 Woodward, A. S. 1889 D, p. 39. (*Janassa*.)
 Subcarboniferous (St. Louis); Illinois, Missouri.

Peltodus transversus St. J. and Worth.

St. John and Worthen 1875 A, p. 412, pl. xlii, fig. 8.
 Lesley, J. P. 1889 A, p. 614, figure.
 Woodward, A. S. 1889 D, p. 39. (*Janassa*.)
 Coal-measures; Illinois.

Peltodus unguiformis Newb. and Worth.

Newberry and Worthen 1870 A, p. 363, pl. ii, fig. 7.
 Woodward, A. S. 1889 D, p. 39. (*Janassa*.)
 Coal-measures; Illinois.

TANAODUS St. J. and Worth. Type, none named.

St. John and Worthen 1875 A, p. 367.
 Jaekel, O. 1899 A, p. 278.
 Koninck, L. G. de 1878 A, p. 52.
 Miller, S. A. 1889 A, p. 612.
 Woodward, A. S. 1889 D, pp. 34, 39. (Syn. of *Janassa*.)

Tanaodus angularis (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 55, pl. iii, figs. 16, 16a. (Chomatodus *angularis* in text; *C. angulatus* on plate.)
 St. John and Worthen 1875 A, p. 368. (*T. angulatus*.)
 Woodward, A. S. 1889 D, p. 48. (*Petalodus*.)
 Coal-measures; Illinois.

Tanaodus bellicinctus St. J. and Worth.

St. John and Worthen 1875 A, p. 376, pl. xi, figs. 14-16, 25.
 Lesley, J. P. 1890 A, p. 1156, figures.
 Woodward, A. S. 1889 D, p. 39. (*Janassa*.)
 Subcarboniferous (Chester); Illinois.

Tanaodus depressus St. J. and Worth.

St. John and Worthen 1875 A, p. 378, pl. xi, figs. 11-13.
 Lesley, J. P. 1890 A, p. 1156, figures.
 Woodward, A. S. 1889 D, p. 39. (*Janassa*.)
 Subcarboniferous (Chester); Illinois.

Tanaodus gracillimus (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 51, pl. iii, figs. 12, 12a. (Chomatodus.)
 Miller, S. A. 1889 A, p. 613, fig. 1176.
 St. John and Worthen, 1875 A, p. 368.
 Woodward, A. S. 1889 D, p. 48. (*Petalodus*.)
 Subcarboniferous (Burlington); Iowa.

Tanaodus grossiplicatus St. J. and Worth.

St. John and Worthen 1875 A, p. 375, pl. xi, fig. 26.
 Lesley, J. P. 1890 A, p. 1156, figures.
 Woodward, A. S. 1889 D, p. 39. (*Janassa*.)
 Subcarboniferous (Chester); Illinois.

Tanaodus multiplicatus (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 57, pl. III, figs. 18, 18a. (Chomatodus.)

Koninck, L. G. de 1878 A, p. 53, pl. vi, figs. 10, 11.

Lesley, J. P. 1890 A, p. 1157, figures.

St. John and Worthen, 1875 A, p. 368.

Sauvage, H. E. 1888 A, p. 47.

Woodward, A. S. 1889 D, p. 49. (Petalodus.)

Subcarboniferous (Burlington); Iowa. Also in Subcarboniferous of Belgium.

Tanaodus obscurus (Leidy).

Leidy, J. 1857 H, p. 89, pl. v, figs. 22, 23. (Chomatodus.)

St. John and Worthen, 1875 A, p. 368.

Woodward, A. S. 1889 D, p. 228. (Chomatodus.)

Coal-measures; Illinois.

Tanaodus polymorphus St. J. and Worth.

St. John and Worthen 1875 A, p. 380, pl. xi, figs. 17-19, 24.

Lesley, J. P. 1890 A, p. 1157, figures.

Woodward, A. S. 1889 D, p. 39. (Janassa.)

Subcarboniferous (Chester); Illinois.

Tanaodus prænuntius St. J. and Worth.

St. John and Worthen 1875 A, p. 371, pl. xi, figs. 6-10. Keyes, C. R. 1894 A, p. 231.

Lesley, J. P. 1890 A, p. 1158, figures.

Woodward, A. S. 1889 D, p. 39. (Janassa.)

Subcarboniferous (St. Louis); Illinois, Iowa, Missouri.

Tanaodus pumilis St. J. and Worth.

St. John and Worthen 1875 A, p. 369, pl. xi, figs. 1-5. Lesley, J. P. 1890 A, p. 1158, figures.

Woodward, A. S. 1889 D, p. 39. (Janassa.)

Subcarboniferous (St. Louis); Illinois, Iowa.

Tanaodus sculptus St. J. and Worth.

St. John and Worthen 1875 A, p. 373, pl. xi, figs. 20-23.

Keyes, C. R. 1894 A, p. 231.

Lesley, J. P. 1890 A, p. 1158, figures.

Woodward, A. S. 1889 D, p. 39. (Janassa.)

Subcarboniferous (St. Louis); Illinois, Iowa, Missouri.

Tanaodus sublunatus St. J. and Worth.

St. John and Worthen 1875 A, p. 368, pl. xi, fig. 27.

Lesley, J. P. 1890 A, p. 1159, figures.

Woodward, A. S. 1889 D, p. 39. (Janassa.)

Subcarboniferous (St. Louis); Illinois.

CYMATODUS Newb. and Worth. Type *C. oblongus*, Newb. and Worth.

Newberry and Worthen 1870 A, p. 363.

Miller, S. A. 1889 A, p. 594.

Woodward, A. S. 1889 D, pp. 39, 458.

Cymatodus oblongus Newb. and Worth.

Newberry and Worthen 1870 A, p. 364, pl. iv, figs. 7, 7a.

Woodward, A. S. 1889 D, pp. 39, 458.

Coal-measures; Illinois.

THORACODUS Cope. Type *T. emydinus* Cope.

Cope, E. D. 1883 K, p. 108.

Miller, S. A. 1889 A, p. 613.

Woodward, A. S. 1889 D, p. 39. (=Janassa?).

Probably a synonym of Janassa.

Thoracodus emydinus Cope.

Cope, E. D. 1883 K, p. 108.

Case, E. C. 1900 A, p. 702.

Miller, S. A. 1889 A, p. 613. (T. eurydinus.)

Woodward, A. S. 1889 D, p. 39.

Permian; Illinois.

FISSODUS St. J. and Worth. Type *F. bifidus* St. J. and Worth.

St. John and Worthen 1875 A, p. 413.

Jaekel, O. 1895 B, p. 201. (Syn. of Petalodus.)

1899 A, p. 289.

Miller, S. A. 1889 A, p. 597.

Nicholson and Lydekker 1889 A, p. 929.

Woodward, A. S. 1889 D, p. 40.

Fissodus bifidus St. J. and Worth.

St. John and Worthen 1875 A, p. 414, pl. xiii, figs. 1, 2.

Miller, S. A. 1889 A, p. 598, fig. 1131.

Woodward, A. S. 1889 D, p. 40.

Subcarboniferous (Chester); Illinois.

Fissodus tricuspidatus St. J. and Worth.

St. John and Worthen 1875 A, p. 415, pl. xiii, fig. 3.

Woodward, A. S. 1889 D, p. 40.

Subcarboniferous (Chester); Illinois.

CHOLODUS St. J. and Worth. Type *C. inæqualis* St. J. and Worth.

St. John and Worthen 1875 A, p. 415.

Miller, S. A. 1889 A, p. 590.

Woodward, A. S. 1889 D, p. 40.

Cholodus inæqualis St. J. and Worth.

St. John and Worthen 1875 A, p. 416, pl. xiii, figs. 4, 5.

Miller, S. A. 1889 A, p. 590, fig. 1108.

Coal-measures; Illinois, Iowa.

PETALORHYNCHUS Newb. and Worth. Type *Petalodus peitacinus* McCoy.

- Newberry and Worthen 1866 A, p. 32.
 Davis, J. W. 1882 A.
 1882 B, p. 60.
 1883 A, pp. 485, 516.
 Jaekel, O. 1895 B. (Syn. of *Petalodus*).
 1899 A, p. 286.
 Miller, S. A. 1889 A, p. 606.
 Nicholson and Lydekker 1889 A, p. 929.
 Woodward, A. S. 1889 D, p. 42.
 Zittel, K. A. 1890 A, p. 97.

Petalorhynchus distortus St. J. and Worth.

- St. John and Worthen* 1875 A, p. 406, pl. xii, figs. 7, 8.
 Keyes, C. R. 1894 A, p. 232.
 Lesley, J. P. 1889 A, p. 626, figures.
 Woodward, A. S. 1889 D, p. 42.
 Subcarboniferous (St. Louis); Illinois, Iowa, Missouri.

Petalorhynchus pseudosagittatus St. J. and Worth.

- St. John and Worthen* 1875 A, p. 406, pl. xii, figs. 1-4.

PETALODUS Owen. Type *P. hastingiae* Agassiz.

- Owen, R. 1845 B, p. 61, pl. xxii.
 Barkas, W. J. 1874 A, p. 536.
 Davis, J. W. 1882 A.
 1882 B, p. 58.
 1883 A, p. 484.
 Hancock and Atthey, 1869 A.
 Hancock and Howes, 1870 A, pp. 54, 61.
 Jaekel, O. 1895 B.
 1899 A, p. 286.
 Koninck, L. G. de 1878 A, p. 49.
 Leidy, J. 1856 D (*Sicarius*, type *S. extinctus*).
 1856 S, p. 161.
 McCoy, F. 1855 A, p. 635.
 Miller, S. A. 1889 A, p. 605.
 Newberry and Worthen 1866 A, pp. 31, 46.
 Nicholson and Lydekker 1889 A, p. 930.
 Pictet, F. J. 1854 A, p. 270.
 Trautschold, H. 1874 B, p. 293.
 Woodward, A. S. 1885 B, pp. 156, 226.
 1889 D, p. 42.
 Zittel, K. A. 1890 A, p. 97.

Petalodus curtus Newb. and Worth.

- Newberry and Worthen* 1870 A, p. 355, pl. iii, fig. 2.
 Lesley, J. P. 1889 A, p. 625, figures.
 St. John and Worthen 1875 A, p. 394, pl. xii, figs. 12-12c (with ?).
 Woodward, A. S. 1889 D, p. 47.
 Subcarboniferous (Keokuk); Illinois, Iowa.

Petalodus hybridus St. J. and Worth.

- St. John and Worthen* 1875 A, p. 394, pl. xii, fig. 10.
 Woodward, A. S. 1889 D, p. 47.
 Subcarboniferous (St. Louis); Illinois.

- Keyes, C. R. 1894 A, p. 232.
 Lesley, J. P. 1889 A, p. 626, figures.
 Woodward, A. S. 1889 D, p. 42.
 Subcarboniferous (St. Louis); Illinois, Missouri, Iowa.

Petalorhynchus spatulatus St. J. and Worth.

- St. John and Worthen* 1875 A, p. 408, pl. xii, figs. 5, 6.
 Lesley, J. P. 1889 A, p. 626, figures.
 Woodward, A. S. 1889 D, p. 42.
 Subcarboniferous (St. Louis); Illinois, Iowa?

Petalorhynchus striatus Newb. and Worth.

- Newberry and Worthen* 1866 A, p. 40, pl. ii, figs. 8-5b.
 Lesley, J. P. 1889 A, p. 626, figures.
 1896 A, pl. dxxx.
 Woodward, A. S. 1889 D, p. 42.
 Subcarboniferous (Burlington); Illinois.

Petalodus knappi Newb.

- Newberry, J. S.* 1879 A, p. 345.
 Kindie, E. M. 1896 A, p. 485.
 Woodward, A. S. 1889 D, p. 47.
 Subcarboniferous (Keokuk); Indiana.

Petalodus linguifer Newb. and Worth.

- Newberry and Worthen* 1866 A, p. 37, pl. ii, figs. 4-5c.
 Hambach, G. 1890 A, p. 81.
 Leidy, J. 1876 C.
 Woodward, A. S. 1889 D, p. 47.
 Subcarboniferous (Chester); Illinois, Missouri (fide Hambach).

Petalodus ohioensis Safford.

- Safford, J. M.* 1863 A, figs. 1, 2. (*Petalodus*, *err. typ.*)
 Eastman, C. R. 1896 D, p. 174. (*P. alleghaniensis*.)
 Hambach, G. 1890 A, p. 81. (*P. destructor*.)
 Hay, O. P. 1895 C. (*P. ohioensis*, *P. securia*.)
 Leidy, J. 1856 D. (*Sicarius extinctus*.)
 1856 S, p. 161, pl. xvi, figs. 4-6. (*P. alleg.*)
 1859 C. (*P. alleg.*)
 1873 B, pp. 312, 353, pl. xvii, fig. 3. (*P. alleg.*)
 Lesley, J. P. 1889 A, p. 624, figures. (*P. alleg.*)
 1895 A, pl. dxxx. (*P. alleg.*, *P. destructor*.)
 Miller, S. A. 1889 A, p. 605, fig. 1157. (*P. alleg.*)
 Newberry, J. S. 1875 A, p. 52, pl. lviii, figs. 13, 13a. (*P. alleg.*, *P. destructor*.)
 Newberry and Worthen 1866 A, p. 35, pl. ii, figs. 1-3. (*P. destructor*.)
 St. John, O. 1870 A, p. 433. (*P. destructor*.)
 1872 A, p. 240, pl. iii, fig. 5.

St. John and Worthen 1875 A, p. 396. (P. alleg.)
 Woodward, A. S. 1889 D, p. 46.
 Coal-measures; Pennsylvania, Ohio, Illinois,
 Nebraska, Arkansas, Missouri.

Petalodus proximus St. J. and Worth.

St. John and Worthen 1875 A, p. 396, pl. xii, fig. 11.
 Woodward, A. S. 1889 D, p. 48.
 Coal-measures; Illinois.

ANTILODUS Newb. and Worth. Type, *A. mucronatus* Newb. and Worth.

Newberry and Worthen 1866 A, p. 33.
 Davis, J. W. 1883 A, p. 485.
 Koninck, L. G. de 1878 A, p. 51.
 Miller, S. A. 1889 A, p. 567.
 Newberry, J. S. 1889 A, p. 185.
 St. John and Worthen, 1875 A, p. 368.
 Woodward, A. S. 1889 D, pp. 42, 48. (Syn. of *Petalodus*.)
 Woodward and Sherborn 1890 A, p. 145. (Syn. of *Petalodus*.)
 Zittel, K. A. 1890 A, p. 97.

Antilodus arcuatus Newb.

Newberry, J. S. 1889 A, p. 206, pl. xix, figs. 3, 4.
 Kindle, E. M. 1898 A, p. 484.
 Subcarboniferous (St. Louis); Indiana.

Antilodus cucullus Newb. and Worth.

Newberry and Worthen 1866 A, p. 41, pl. iii, figs. 1-1b.
 Woodward, A. S. 1889 D, p. 48. (Petalodus.)
 Subcarboniferous (Keokuk); Illinois.

Antilodus gracilis St. J. and Worth.

St. John and Worthen 1875 A, p. 398, pl. xi, fig. 29.
 Woodward, A. S. 1889 D, p. 48. (Petalodus.)
 Subcarboniferous (Warsaw); Illinois.

Antilodus minutus Newb. and Worth.

Newberry and Worthen 1866 A, p. 43, pl. iii, figs. 3-3b.
 Kindle, E. M. 1898 A, p. 484.
 Koninck, L. G. de 1878 A, p. 52, pl. vi, fig. 9.
 Newberry, J. S. 1879 A, p. 341.
 Sauvage, H. E. 1888 A, p. 47.
 Woodward, A. S. 1889 D, p. 48. (Petalodus.)
 Subcarboniferous; Europe: (Keokuk); Illinois: (St. Louis); Indiana.

Antilodus mucronatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 38, pl. ii, figs. 6-6b.
 Woodward, A. S. 1889 D, p. 48. (Petalodus.)
 Subcarboniferous (St. Louis); Illinois.

Antilodus parvulus Newb. and Worth.

Newberry and Worthen 1866 A, p. 38, pl. ii, figs. 7-7a.

Woodward, A. S. 1889 D, p. 48. (Petalodus.)
 Subcarboniferous (Burlington, Keokuk); Illinois.

Antilodus perovalis St. J. and Worth.

St. John and Worthen 1875 A, p. 398, pl. xi, fig. 28.
 Woodward, A. S. 1889 D, p. 48. (Petalodus.)
 Subcarboniferous (Warsaw); Illinois.

Antilodus politus Newb. and Worth.

Newberry and Worthen 1866 A, p. 42, pl. iii, figs. 2, 2a.
 Woodward, A. S. 1889 D, p. 48. (Petalodus.)
 Subcarboniferous (Keokuk); Illinois.

Antilodus robustus Newb. and Worth.

Newberry and Worthen 1866 A, p. 39, pl. ii, figs. 9-9c.
 Woodward, A. S. 1889 D, p. 48. (Petalodus.)
 Subcarboniferous (Chester); Illinois.

Antilodus sarculus Newb. and Worth.

Newberry and Worthen 1870 A, p. 356, pl. iii, figs. 8-8b.
 Woodward, A. S. 1889 D, p. 458. (Petalodus.)
 Subcarboniferous (Burlington); Iowa.

Antilodus similis Newb. and Worth.

Newberry and Worthen 1866 A, p. 41, pl. ii, figs. 10, 10a.
 Kindle, E. M. 1898 A, p. 484.
 Newberry, J. S. 1879 A, p. 346.
 Woodward, A. S. 1889 D, p. 48. (Petalodus.)
 Subcarboniferous (Keokuk); Illinois, Indiana.

Antilodus simplex Newb. and Worth.

Newberry and Worthen 1866 A, p. 44, pl. iii, figs. 4, 4a.
 Woodward, A. S. 1889 D, p. 48. (Petalodus.)
 Subcarboniferous (Burlington); Iowa.

Antilodus sulcatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 45, pl. iii, figs. 5, 5a.
 Woodward, A. S. 1889 D, p. 48. (Petalodus.)
 Subcarboniferous (Keokuk); Illinois.

CHOMATODUS Agassiz. Type *C. linearis* Agassiz.

Agassiz, L. 1843 B (1838), iii, p. 108.
 1844 A.

Davis, J. W. 1883 A, p. 507.
 Destinez, F. 1898 A, p. 220.
 Koninck, L. G. de 1878 A, p. 45.
 Leidy, J. 1857 H, p. 89. (Palaeobatis, type *P. insignis* Leidy.)
 McCoy, F. 1855 A, p. 617.

Miller, S. A. 1889 A, p. 590 (Chomatodus); p. 604 (Palaeobatis).
 Newberry, J. S. 1889 A, p. 186.
 Newberry and Worthen 1866 A, p. 34.
 Owen, R. 1845 B, p. 61.
 Pictet, F. J. 1854 A, p. 266.
 St. John and Worthen 1875 A, p. 367.

Woodward, A. S. 1889 D, p. 48 (Syn. of *Petalodus*); p. 228 (*Chomatodus*).

Woodward and Sherborn 1890 A, p. 82.

Zittel, K. A. 1890 A, p. 97.

***Chomatodus affinis* Newb. and Worth.**

Newberry and Worthen 1866 A, p. 54, pl. iii, figs. 15, 16a.

Woodward, A. S. 1889 D, p. 46. (*Petalodus*.)

Subcarboniferous (Keokuk); Illinois.

***Chomatodus angustus* Newb.**

Newberry, J. S. 1879 A, p. 342.

Kindle, E. M. 1898 A, p. 484.

Woodward, A. S. 1889 D, p. 228.

Subcarboniferous (St. Louis); Indiana.

***Chomatodus arcuatus* St. John.**

St. John, O. 1870 A, p. 435.

Destinez, P. 1898 A, p. 221.

St. John, O. 1872 p. 243, pl. vi, figs. 14a, 14b.

St. John and Worthen 1875 A, pl. x, figs. 23a, 23b.

Woodward, A. S. 1889 D, p. 228.

Coal-measures; Iowa, Nebraska, Belgium.

***Chomatodus chesterensis* St. J. and Worth.**

St. John and Worthen 1875 A, p. 368, pl. x, figs. 15-17d.

Woodward, A. S. 1889 D, p. 228.

Subcarboniferous (Chester); Illinois.

***Chomatodus comptus* St. J. and Worth.**

St. John and Worthen 1875 A, p. 356, pl. x, figs. 19-22.

Woodward, A. S. 1889 D, p. 228.

Subcarboniferous (Burlington); Iowa.

***Chomatodus costatus* Newb. and Worth.**

Newberry and Worthen 1866 A, p. 85, pl. v, figs. 17, 17a.

Woodward, A. S. 1889 D, p. 459.

Subcarboniferous (Keokuk); Illinois.

***Chomatodus cultellus* Newb. and Worth.**

Newberry and Worthen 1866 A, p. 52, pl. iii, figs. 13, 13a.

St. John and Worthen 1875 A, p. 359.

Woodward, A. S. 1889 D, p. 48. (*Petalodus*.)

Subcarboniferous (Chester); Illinois.

***Chomatodus elegans* Newb. and Worth.**

Newberry and Worthen 1866 A, p. 86, pl. v, figs. 18-18b.

Woodward, A. S. 1889 D, p. 228.

Subcarboniferous (Keokuk); Iowa.

***Chomatodus inconstans* St. J. and Worth.**

St. John and Worthen 1875 A, p. 360, pl. x, figs. 5-14.

Woodward, A. S. 1889 D, p. 228.

Subcarboniferous (St. Louis); Iowa.

***Chomatodus incrassatus* St. J. and Worth.**

St. John and Worthen 1875 A, p. 359, pl. x, fig. 18.

Keyes, C. R. 1894 A, p. 231.

Miller, S. A. 1889 A, p. 590, fig. 1109.

Woodward, A. S. 1889 D, p. 458. (*Petalodus*.)

Subcarboniferous (St. Louis); Illinois, Iowa, Missouri.

***Chomatodus insignis* (Leidy).**

Leidy, J. 1857 H, p. 89, pl. v, figs. 24-26. (*Paleobatis*.)

Miller, S. A. 1889 A, p. 604. (*Paleobatis*.)

St. John and Worthen 1875 A, p. 359, pl. x A, figs. 5-5c.

Woodward, A. S. 1889 D, p. 48. (*Petalodus*.)

Subcarboniferous (St. Louis); Missouri, Illinois.

Woodward regards the identification of Leidy's species with that of *St. John and Worthen* as doubtful.

***Chomatodus loriformis* Newb. and Worth.**

Newberry and Worthen 1866 A, p. 58, pl. iii, figs. 19, 19a.

Woodward, A. S. 1889 D, p. 49. (*Petalodus*.)

Subcarboniferous (Keokuk); Illinois.

***Chomatodus molaris* Newb. and Worth.**

Newberry and Worthen 1866 A, p. 56, pl. iii, figs. 17, 17a.

Woodward, A. S. 1889 D, p. 49. (*Petalodus*.)

Subcarboniferous (Keokuk); Illinois.

***Chomatodus newberryi* nom. nov.**

Kindle, E. M. 1898 A, p. 484. (*C. obliquus*.)

Newberry, J. S. 1879 A, p. 342. (*C. obliquus*, not of McCoy, 1848.)

Woodward, A. S. 1889 D, p. 228. (*C. obliquus*.)

Subcarboniferous (St. Louis); Indiana.

***Chomatodus parallelus* St. J. and Worth.**

St. John and Worthen 1875 A, p. 358, pl. x A, figs. 3, 4.

Keyes, C. R. 1894 A, p. 231.

Woodward, A. S. 1889 D, p. 49. (*Petalodus*.)

Subcarboniferous (Warsaw); Illinois, Missouri.

***Chomatodus pusillus* Newb. and Worth.**

Newberry and Worthen 1866 A, p. 53, pl. iii, figs. 14-14b.

Kindle, E. M. 1898 A, p. 484.

Woodward, A. S. 1889 D, p. 49. (*Petalodus*.)

Subcarboniferous (Keokuk); Illinois, Indiana.

***Chomatodus selliformis* Newb.**

Newberry, J. S. 1879 A, p. 341.

Kindle, E. M. 1898 A, p. 484.

Woodward, A. S. 1889 D, p. 228.

Subcarboniferous (St. Louis); Illinois, Indiana.

***Chomatodus varsouvienais* St. J. and Worth.**

St. John and Worthen 1875 A, p. 363, pl. x, figs. 1-4b.

Woodward, A. S. 1889 D, p. 228.

Subcarboniferous (Warsaw); Illinois, Missouri.

LISGODUS St. J. and Worth. Type *L. curtus* St. J. and Worth.

St. John and Worthen 1875 A, p. 363.
 Miller, S. A. 1889 A, p. 601.
 Woodward, A. S. 1889 D, p. 49.

***Lisgodus affinis* Newb.**

Newberry, J. S. 1879 A, p. 343.
 Kindle, E. M. 1896 A, p. 484.
 Woodward, A. S. 1889 D, p. 49.
 Subcarboniferous (St. Louis); Illinois, Missouri, Indiana.

***Lisgodus curtus* St. J. and Worth.**

St. John and Worthen 1875 A, p. 364, pl. xA, figs. 20-22.
 Keyes, C. R. 1894 A, p. 231.
 Miller, S. A. 1889 A, p. 601, fig. 1143.

Woodward, A. S. 1889 D, p. 49.

Subcarboniferous (Burlington); Iowa, Illinois, Missouri.

***Lisgodus selluliformis* St. J. and Worth.**

St. John and Worthen, 1875 A, p. 366, pl. xA, fig. 16.
 Keyes, C. R. 1894 A, p. 231.
 Woodward, A. S. 1889 D, p. 49.
 Subcarboniferous (St. Louis); Illinois, Missouri.

***Lisgodus serratus* St. J. and Worth.**

St. John and Worthen 1875 A, p. 365, pl. xA, figs. 17-19.
 Woodward, A. S. 1889 D, p. 49.
 Subcarboniferous (Burlington); Iowa, Illinois.

CALOPODUS St. J. and Worth. Type *C. apicalis* St. J. and Worth.

St. John and Worthen 1875 A, p. 403.
 Miller, S. A. 1889 A, p. 589.
 Woodward, A. S. 1889 D, p. 49.

***Calopodus apicalis* St. J. and Worth.**

St. John and Worthen 1875 A, p. 403, pl. xii, figs. 16, 17.

Miller, S. A. 1889 A, p. 589, fig. 1105.

Woodward, A. S. 1889 D, p. 49.
 Coal-measures, Iowa.

Ctenopterygius Davis. Type *Petalodus serratus* Owen.

Davis, J. W. 1881 A, p. 426. (Ex. Agass. MSS.)
 1882 B, p. 59.
 McCoy, F. 1855 A, p. 626. (Ctenopterygius.)
 Miller, S. A. 1889 A, p. 594.
 Newberry, J. S. 1889 A, p. 186.
 Pictet, F. J. 1854 A, p. 264. (Ctenopterygius.)
 Ward, J. 1890 A, p. 141. (Ctenopterygius.)
 Woodward, A. S. 1889 D, p. 49. (Syn. of Ctenopterygius.)
 Woodward and Sherborn 1890 A, p. 54. (Syn. of Ctenopterygius.)
 Zittel, K. A. 1890 A, p. 99.
***Ctenopterygius bellulus* St. J. and Worth.**
St. John and Worthen 1875 A, p. 396, pl. xii, fig. 9.
 [C. (Petalodus).]
 Woodward, A. S. 1889 D, p. 58. (Ctenopterygius.)
 Subcarboniferous (St. Louis); Iowa, Illinois.
***Ctenopterygius limatulus* St. J. and Worth.**
St. John and Worthen 1875 A, p. 399, pl. xii, fig. 18.

Woodward, A. S. 1889 D, p. 53. (Ctenopterygius.)
 Subcarboniferous (Chester); Illinois.

***Ctenopterygius medius* St. J. and Worth.**

St. John and Worthen 1875 A, p. 400, pl. xA, fig. 26.
 Woodward, A. S. 1889 D, p. 53. (Ctenopterygius.)
 Subcarboniferous (Chester); Illinois.

***Ctenopterygius occidentalis* St. J. and Worth.**

St. John and Worthen 1875 A, p. 401, pl. xii, fig. 14.
 Miller, S. A. 1889 A, p. 594, fig. 1120.
 Woodward, A. S. 1889 D, p. 53. (Ctenopterygius.)
 Coal-measures; Iowa.

***Ctenopterygius vinosus* St. J. and Worth.**

St. John and Worthen 1875 A, p. 396, pl. xii, fig. 13.
 Woodward, A. S. 1889 D, p. 54. (Ctenopterygius.)
 Subcarboniferous (Keokuk); Iowa.

Ctenopterygius Agassiz. Type *C. apicalis* Agassiz.

Agassiz, L. 1843 B (1838), iii, p. 99.
 1844 A.
 Barkas, W. J. 1873 A, p. 18.
 1874 A, pp. 489, 482, 583.
 Davis, J. W. 1881 A, p. 426.
 Jaekel, O. 1895 B, p. 201.
 1899 A, p. 286.
 Miller, S. A. 1889 A, p. 594 (Ctenopterygius); p. 605 (Peripristis).

Newberry, J. S. 1875 A, p. 52.

1889 A, p. 186.

Newberry and Worthen 1866 A, pp. 33, 73.

Nicholson and Lydekker 1889 A, p. 930.

Owen, R. 1845 B, p. 61.

Pictet, F. J. 1854 A, p. 264.

St. John, O. 1870 A, p. 434. (Peripristis, type *P. semicircularis*.)

1872 A, p. 241. (Peripristis.)

Stock, T. 1882 A.

1885 B, p. 227.

Woodward, A. S. 1889 D, p. 49.

Woodward and Sherborn 1890 A, p. 54.

Zittel, K. A. 1890 A, p. 99.

Ctenoptychius acuminatus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 402, pl. xA, figs. 6-6d. (Pristodus?)

Lesley, J. P. 1889 A, p. 745, figures. (Pristodus?)

Woodward, A. S. 1889 D, p. 53.

Subcarboniferous (Kinderhook); Iowa.

Ctenoptychius cristatus Dawson.

Dawson, J. W. 1868 A, p. 209, fig. 52.

1878 A, p. 209, fig. 52.

Lesley, J. P. 1889 A, pl. dlxx.

Miller, S. A. 1889 A, p. 594, fig. 1121.

Woodward, A. S. 1889 D, p. 56.

Coal-measures; Nova Scotia.

Ctenoptychius pertenuis St. J. and Worth.

St. John and Worthen 1875 A, p. 382, pl. xA, fig. 27.

HARPACODUS St. J. and Worth. Type *H. occidentalis* St. J. and Worth.

St. John and Worthen 1875 A, p. 354. (Ex. Agass. MSS.)

Davis, J. W. 1881 A, p. 426.

1883 A, p. 514.

Miller, S. A. 1889 A, p. 598.

Newberry, J. S. 1889 A, p. 186.

Woodward, A. S. 1889 D, p. 49. (Syn. of *Ctenoptychius*.)

Zittel, K. A. 1890 A, p. 99.

Harpacodus compactus St. J. and Worth.

St. John and Worthen 1875 A, p. 355, pl. xA, figs. 1-1b.

POLYRHIZODUS McCoy.

McCoy, F. 1848 A, p. 125.

Davis, J. W. 1883 A, pp. 485-499.

Jaekel, O. 1895 B.

1899 A, p. 278.

McCoy, F. 1855 A, p. 641.

Miller, S. A. 1889 A, p. 594 (Dactylodus); p. 607 (Polyrhizodus).

Newberry, J. S. 1897 A, p. 294. (Dactylodus.)

Newberry and Worthen 1866 A, p. 33 (Dactylodus, type *D. princeps*); p. 34 (Polyrhizodus).

Nicholson and Lydekker 1889 A, p. 930. (Polyrhizodus, Dactylodus.)

Pictet, F. J. 1864 A, p. 271.

Trautschold, H. 1874 B, p. 294 (Dactylodus); p. 296 (Polyrhizodus).

Woodward, A. S. 1889 D, p. 56.

Zittel, K. A. 1890 A, p. 97.

Polyrhizodus amplius St. J. and Worth.

St. John and Worthen 1875 A, p. 387, pl. xiii, fig. 13.

Keyes, C. R. 1894 A, p. 232.

Lesley, J. P. 1889 A, p. 732, figures.

Woodward, A. S. 1889 D, p. 53.

Subcarboniferous (Chester); Illinois.

Ctenoptychius semicircularis Newb. and Worth.

Newberry and Worthen 1866 A, p. 72, pl. iv, figs. 18-18b.

Kindle, E. M. 1898 A, p. 484 (Ctenoptychius); p. 485 (Peripristis).

Miller, S. A. 1889 A, p. 605, fig. 1156. (Peripristis.)

Newberry, J. S. 1875 A, p. 52, pl. lviii, fig. 14.

St. John, O. 1870 A, p. 434. (Peripristis.)

1872 A, p. 242, pl. iii, figs. 3, 4; pl. iv, figs. 20-20b.

Woodward, A. S. 1889 D, p. 53.

Coal-measures; Ohio, Indiana, Nebraska.

Ctenoptychius stevensoni St. J. and Worth.

St. John and Worthen 1875 A, p. 383, pl. xii, fig. 15.

Woodward, A. S. 1889 D, p. 54.

Coal-measures; West Virginia.

Woodward, A. S. 1889 D, p. 53. (Ctenoptychius.)

Subcarboniferous (Chester); Illinois.

Harpacodus occidentalis St. J. and Worth.

St. John and Worthen 1875 A, p. 355, pl. xA, figs. 2-2d.

Keyes, C. R. 1894 A, p. 230.

Miller, S. A. 1889 A, p. 599, fig. 1135.

Woodward, A. S. 1889 D, p. 53. (Ctenoptychius.)

Subcarboniferous (St. Louis); Illinois, Missouri.

Type *P. magnus* McCoy.

Woodward, A. S. 1889 D, p. 59.

Subcarboniferous (St. Louis); Illinois, Missouri.

Polyrhizodus carbonarius St. J. and Worth.

St. John and Worthen 1875 A, p. 389, pl. xA, figs. 24, 25; pl. xiii, fig. 1.

Lesley, J. P. 1889 A, p. 732, figures.

Woodward, A. S. 1889 D, p. 59.

Coal-measures; Illinois.

Polyrhizodus concavus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 390, pl. xiii, figs. 17, 18. (Dactylodus.)

Miller, S. A. 1889 A, p. 594, fig. 1123. (Dactylodus.)

Quenstedt, F. A. 1885 A, p. 294, pl. xxiii, fig. 31. (Dactylodus.)

Woodward, A. S. 1889 D, p. 59.

Subcarboniferous (St. Louis); Illinois.

Polyrhizodus dentatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 50, pl. iii, figs. 10, 10a.

Lesley, J. P. 1889 A, p. 733, figures.

Woodward, A. S. 1889 D, p. 59.

Subcarboniferous (Chester); Illinois.

Polyrhizodus digitatus (Leidy).

Leidy, J. 1857 H, p. 90, pl. v, figs. 27-29. (Ctenoptychius.)

Newberry and Worthen 1866 A, p. 47. (Dactylodus.)

1866 A, p. 47, pl. iii, figs. 7, 7a. (Dactylodus lobatus.)

Woodward, A. S. 1889 D, p. 59. (P. lobatus.)

Subcarboniferous (St. Louis); Illinois, Missouri.

Polyrhizodus excavatus (St. J. and Worth.).

St. John and Worthen 1866 A, p. 392, pl. xiii, fig. 16. (Dactylodus.)

Woodward, A. S. 1889 D, p. 59.

Subcarboniferous (Chester); Illinois.

Polyrhizodus inflexus (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 46, pl. iii, figs. 8, 8a. (Dactylodus.)

Woodward, A. S. 1889 D, p. 59.

Subcarboniferous (Chester); Illinois.

Polyrhizodus latus Newberry.

Newberry, J. S. 1897 A, p. 296, pl. xxiii, figs. 7, 7a. (Dactylodus.)

Subcarboniferous (St. Louis); Illinois.

Polyrhizodus littoni Newb. and Worth.

Newberry and Worthen 1870 A, p. 357, pl. iv, figs. 10, 10a.

Keyes, C. R. 1894 A, p. 232.

Kindle, E. M. 1898 A, p. 435.

Lesley, J. P. 1889 A, p. 733, figures.

Miller, S. A. 1889 A, p. 607, fig. 1160.

Newberry, J. S. 1889 A, p. 209, pl. xix, figs. 5, 6.

Woodward, A. S. 1889 D, p. 59.

Subcarboniferous (St. Louis); Missouri, Indiana.

Polyrhizodus minimus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 391, pl. xiii, fig. 19. (Dactylodus.)

Woodward, A. S. 1889 D, p. 60.

Subcarboniferous (St. Louis); Illinois.

Polyrhizodus modestus Newb.

Newberry, J. S. 1875 A, p. 50, pl. lviii, figs. 10, 10a.

Lesley, J. P. 1889 A, p. 733, figures.

Miller, S. A. 1889 A, p. 607, fig. 1161.

Woodward, A. S. 1889 D, p. 60.

Subcarboniferous; Ohio.

Polyrhizodus nanus St. J. and Worth.

St. John and Worthen 1875 A, p. 386, pl. xiii, fig. 15.

Lesley, J. P. 1889 A, p. 733, figures.

Woodward, A. S. 1889 D, p. 60.

Subcarboniferous (Keokuk); Iowa.

Polyrhizodus piasaensis St. J. and Worth.

St. John and Worthen 1875 A, p. 386, pl. xiii, fig. 12.

Lesley, J. P. 1889 A, p. 734, figures.

Woodward, A. S. 1889 D, p. 60.

Subcarboniferous (Warsaw); Illinois.

Polyrhizodus ponticulus Newb. and Worth.

Newberry and Worthen 1866 A, p. 51, pl. iii, figs. 11, 11a.

Lesley, J. P. 1889 A, p. 734, figures.

Woodward, A. S. 1889 D, p. 60.

Subcarboniferous (Chester); Illinois.

Polyrhizodus porosus Newb. and Worth.

Newberry and Worthen 1866 A, p. 49, pl. iii, figs. 9, 9a.

Lesley, J. P. 1889 A, p. 734, figures.

Woodward, A. S. 1889 D, p. 60.

Subcarboniferous (Burlington); Illinois, Iowa.

Polyrhizodus princeps (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 45, pl. iii, figs. 8-8b. (Dactylodus.)

Hambach, G. 1890 A, p. 80.

Jaekel, O. 1899 A, p. 235. (Dactylodus.)

Newberry, J. S. 1897 A, p. 295, pl. xxiii, figs. 5, 5a, 6. (Dactylodus.)

Woodward, A. S. 1889 D, p. 60.

Subcarboniferous (St. Louis); Illinois, Missouri.

Polyrhizodus rectus (Newb.).

Newberry, J. S. 1897 A, p. 296, pl. xxiii, figs. 8, 9. (Dactylodus.)

Subcarboniferous (St. Louis); Illinois.

Polyrhizodus truncatus Newb. and Worth.

Newberry and Worthen 1870 A, p. 357, pl. iii, figs. 16, 16a.

Woodward, A. S. 1889 D, p. 60.

Subcarboniferous (Burlington); Illinois.

Polyrhizodus williamsi St. J. and Worth.

St. John and Worthen 1875 A, p. 384, pl. xA, fig. 23; pl. xiii, fig. 11.

Keyes, C. R. 1894 A, p. 232.

Lesley, J. P. 1889 A, p. 734, figures.

Woodward, A. S. 1889 A, p. 60.

Subcarboniferous (Keokuk); Missouri, Io

PSAMMODONTIDÆ.

Koninck, L. G. de 1878 A, pp. 29, 33.

Davis, J. W. 1883 A, pp. 431, 459.

Jaekel, O. 1896 B.

1896 A, p. 49 (with subfams. Psammodontinæ, Helodontinæ, and Psephodontinæ).

Nicholson and Lydekker 1889 A, p. 984.

St. John and Worthen 1883 A, p. 197.

Woodward, A. S. 1889 D, p. 91.

1896 B, p. 50.

Zittel, K. A. 1890 A, p. 95.

PSAMMODUS Agassiz. Type *P. rugosus* Agassiz.

Agassiz, L. 1843 B (1838), iii, p. 103.
1844 A.

Davis, J. W. 1883 A, p. 459.

Günther, A. 1872 A, p. 519.

Koninck, L. G. de 1844 A, p. 615.

1878 A, p. 41.

McCoy, F. 1855 A, p. 643.

Miller, S. A. 1889 A, p. 608.

Newberry and Worthen 1866 A, p. 107.

Nicholson and Lydekker 1889 A, p. 935.

Owen, R. 1845 B, p. 59, pls. xvii, xx, xxi.

Pictet, F. J. 1854 A, p. 266.

Quenstedt, F. A. 1885 A, p. 293.

St. John and Worthen 1883 A, p. 197.

Steinmann and Döderlein 1890 A, p. 549.

Trautschold, H. 1874 B, p. 288.

Woodward, A. S. 1889 D, p. 99.

Zittel, K. A. 1890 A, p. 95.

Psammodus angularis Newb. and Worth.

Newberry and Worthen 1866 A, p. 107, pl. xi, figs. 2-2b.

Lesley, J. P. 1889 A, p. 784, figures (P. angularis); p. 787, figures (P. porosus?).

Miller, S. A. 1889 A, p. 609, fig. 1164. (P. porosus.)

Newberry and Worthen, 1866 A, p. 107, pl. xi, figs. 1-1b. ("P. porosus Ag.?).")

St. John and Worthen, 1883 A, p. 222.

Woodward, A. S. 1889 D, p. 107.

Subcarboniferous (Chester); Illinois.

Psammodus antiquus Newb.

Newberry, J. S. 1857 C, p. 124.

1873 A, p. 265.

Woodward, A. S. 1889 D, p. 459.

Devonian (Corniferous); Ohio.

Psammodus cætatus St. J. and Worth.

St. John and Worthen 1883 A, p. 217, pl. xviii, fig. 1.

Hambach, G. 1890 A, p. 81.

Lesley, J. P. 1889 A, p. 784, figures.

Woodward, A. S. 1889 D, p. 107.

Subcarboniferous (St. Louis); Iowa, Missouri (Ade Hambach).

Psammodus crassidens St. J. and Worth.

St. John and Worthen, 1883 A, p. 218, pl. xviii, figs. 2-6; text figs. a-c.

Lesley, J. P. 1889 A, p. 784, figures (P. crassidens) p. 788, figures (P. rugosus).

1896 A, pl. ccxxxii.

Miller, S. A. 1889 A, p. 608, fig. 1163.

Newberry and Worthen 1866 A, p. 106, pl. xi, figs. 3, 3a. (P. rugosus, not of Agassiz.)

Woodward, A. S. 1889 D, p. 107.

Subcarboniferous (St. Louis); Illinois, Iowa.

Psammodus glyptus St. J. and Worth.

St. John and Worthen 1883 A, p. 209, pl. xiv, figs. 5, 6.

Kindle, E. M. 1896 A, p. 485.

Lesley, J. P. 1889 A, p. 786, figures.

1896 A, pl. ccxxxii.

Newberry, J. S. 1859 A, p. 210, pl. xix, figs. 7, 8.

Woodward, A. S. 1889 D, p. 107.

Subcarboniferous (Burlington); Illinois.

Psammodus grandis St. J. and Worth.

St. John and Worthen 1883 A, p. 211, pl. xv, figs. 1-3.

Lesley, J. P. 1889 A, p. 786, figures.

1896 A, pl. ccxxxii.

Woodward, A. S. 1889 D, p. 107.

Subcarboniferous (Keokuk); Iowa.

Psammodus lovianus St. J. and Worth.

St. John and Worthen 1883 A, p. 207, pl. xiv, figs. 7-9.

Lesley, J. P. 1889 A, p. 786, figures.

1896 A, pl. ccxxxii.

Woodward, A. S. 1889 D, p. 108.

Subcarboniferous (Burlington); Illinois, Iowa.

Psammodus plenus St. J. and Worth.

St. John and Worthen 1883 A, p. 213, pl. xvi, figs. 1-4; pl. xvii, figs. 1-4.

Keyes, C. R. 1894 A, p. 235.

Lesley, J. P. 1889 A, p. 786, figures.

1896 A, pl. ccxxxii.

Woodward, A. S. 1889 D, p. 108.

Subcarboniferous (St. Louis); Missouri, Illinois, Michigan.

Psammodus reticulatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 109, pl. xi, figs. 5, 5a.

Hambach, G. 1890 A, p. 81.

Koninck, L. G. de 1878 A, p. 42. (P. porosus?).

Lesley, J. P. 1889 A, p. 788, figure.

1896 A, pl. ccxxxii.

St. John and Worthen 1883 A, p. 224, pl. xix, figs. 3, 5.

Woodward, A. S. 1889 D, p. 108.

Subcarboniferous (Chester); Illinois, Missouri (Ade Hambach).

Psammodus springeri St. J. and Worth.

St. John and Worthen 1883 A, p. 202, pl. xx, figs. 4-11, and 7 text figures.

Lesley, J. P. 1889 A, p. 789, figures.

1896 A, pl. cccxxii.

Miller, S. A. 1889 A, p. 609, figs. 1165, 1166.

Woodward, A. S. 1889 D, p. 108.

Subcarboniferous (Burlington); Iowa, Illinois.

Psammodus tumidus St. J. and Worth.

St. John and Worthen 1883 A, p. 205, pl. xiv, figs. 1-4.

Lesley, J. P. 1889 A, p. 790, figures.

Woodward, A. S. 1889 D, p. 108.

Subcarboniferous (Burlington); Illinois, Iowa.

Psammodus turgidus St. J. and Worth.

St. John and Worthen 1883 A, p. 206, pl. xv, fig. 4; text-fig. a.

Lesley, J. P. 1889 A, p. 790, figures.

1896 A, pl. cccxxxi.

Miller, S. A. 1889 A, p. 609, fig. 1168.

Woodward, A. S. 1889 D, p. 108.

Subcarboniferous (division beds of Burlington and Keokuk); Iowa.

Psammodus sp?

Dawson, J. W. 1868 A, p. 210, fig. 54.

Lesley, J. P. 1889 A, p. 790, figure.

Coal-measures; Nova Scotia.

MAZODUS Newb. Type *M. kepleri* Newb.

Newberry, J. S. 1889 A, p. 178.

Claypole, E. W. 1896 D, p. 146.

1896 E, p. 152.

Miller, S. A. 1892 A, p. 716.

Mazodus kepleri Newb.

Newberry, J. S. 1889 A, p. 180, pl. xxi, figs. 1-3.

Claypole, E. W. 1896 D, p. 146, figs. 1, 2.

Subcarboniferous (Waverly); Ohio.

ARCHÆOBATIS Newb. Type *A. gigas* Newb.

Newberry, J. S. 1878 A, p. 190.

1879 A, p. 346.

1886 A.

Nicholson and Lydekker 1886 A.

Woodward, A. S. 1889 D, p. 108.

1890 A, p. 391.

Zittel, K. A. 1890 A, p. 96.

Archæobatis gigas Newb.

Newberry, J. S. 1878 A, p. 190.

Kindle, E. M. 1898 A, p. 484.

Newberry, J. S. 1879 A, p. 347.

1884 A.

1885 A.

Woodward, A. S. 1889 D, p. 108.

1890 A, p. 391.

Subcarboniferous (St. Louis); Indiana.

COPODUS Davis. Type *C. cornutus* Davis.

Davis, J. W. 1883 A, p. 464.

1883 A, p. 469. (Labodus.)

Eastman, C. R. 1898 A, p. 112.

Miller, S. A. 1889 A, p. 592.

1892 A, p. 716.

Newberry, J. S. 1889 A, p. 198. (Labodus.)

Nicholson and Lydekker 1889 A, p. 935.

St. John and Worthen 1883 A, p. 227; 6 text-figs.

Woodward, A. S. 1884 A, p. 271.

1889 D, p. 91.

Woodward and Sherborn 1890 A, p. 43.

Zittel, K. A. 1890 A, p. 96.

Copodus marginatus (Newb.).

Newberry, J. S. 1889 A, p. 198, pl. xix, fig. 9. (Labodus.)

Kindle, E. M. 1898 A, p. 484. (Labodus.)

Subcarboniferous (St. Louis); Indiana.

Copodus pusillus St. J. and Worth.

St. John and Worthen 1883 A, p. 231, pl. xx, fig. 1.

Woodward, A. S. 1889 D, p. 99.

Subcarboniferous (Chester); Illinois.

Copodus vanhornii St. J. and Worth.

St. John and Worthen 1883 A, p. 229, pl. xx, figs. 2, 3.

Keyes, C. R. 1894 A, p. 235.

Woodward, A. S. 1889 D, p. 99.

Subcarboniferous (St. Louis); Missouri, Illinois.

Superfamily HETERODONTOIDEA,¹ nom. nov.

Gill, T., 1882, in Jordan and Gilbert's Synop. Fishes N. A., p. 967. (Proarthri.)

1884 B, p. 346. (Proarthri.)

1884 C. (Proarthri.)

1893 A, p. 129. (Proarthri.)

Jordan and Evermann 1896 A, p. 19. (Proarthri.)

Woodward, A. S. 1889 D, p. ix. ("Proarthri.")

¹ This name is proposed in order to conform to the rule adopted by many zoologists, according to which the name of the superfamily is derived from that of a typical family.

COCHLIODONTIDÆ.

- Owen, R. 1867 A.
 Brown, C. 1900 A, pp. 173, 174.
 Cope, E. D. 1891 N, p. 17.
 1898 B, p. 26.
 Davis J. W. 1882 B.
 1883 A, pp. 331, 410.
 1890 B.
 Koninck, L. G. de 1878 A, p. 29.

- Nicholson and Lydekker 1889 A, p. 989.
 St. John and Worthen 1883 A, p. 201.
 Traquair, R. H. 1888 A, p. 84.
 Woodward, A. S. 1884 A, p. 269.
 1889 D, p. 169.
 1892 G.
 Zittel, K. A. 1890 A, p. 68.

HELODUS Agassiz. Type *H. simplex* Agassiz.

- Agassiz, L. 1843 B (1838), III, p. 104.
 1844 A.
 Amer. Geologist 1888 A.
 Davis, J. W. 1890 B.
 Jaekel O. 1898 A, p. 50.
 Koninck, L. G. de 1844 A, p. 614.
 1878 A, p. 38.
 McCoy, F. 1885, A, p. 630.
 Miller, S. A. 1889 A, p. 599.
 Newberry and Worthen 1866 A, p. 74.
 1870 A, p. 365.
 Nicholson and Lydekker 1889 A, p. 989.
 Pictet, F. J. 1864 A, p. 266.
 Quenstedt, F. A. 1885 A, p. 294.
 St. John and Worthen 1875 A, p. 296.
 Traquair, R. H. 1888 A, p. 84.
 Trautschold, H. 1874 B, p. 288.
 Ward, J. 1890 A, p. 143.
 Woodward, A. S. 1884 A, p. 269.
 1889 D, pp. 171, 226.
 Woodward and Sherborn 1890 A, p. 92.
 Zittel, K. A. 1890 A, p. 75.
- Helodus angulatus** Newb. and Worth.
Newberry and Worthen 1866 A, p. 83, pl. v, figs. 9-15.
 St. John and Worthen 1875 A, p. 362.
 Woodward, A. S. 1889 D, p. 221.
 Subcarboniferous (Burlington); Illinois.
- Helodus biformis** Newb. and Worth.
Newberry and Worthen 1866 A, p. 77, pl. iv, fig. 22.
 St. John and Worthen 1875 A, p. 419.
 Woodward, A. S. 1889 D, p. 226.
 Subcarboniferous (Kinderhook); Iowa.
- Helodus carbonarius** Newb. and Worth.
Newberry and Worthen 1866 A, p. 75, pl. iv, figs. 20, 20a.
 Woodward, A. S. 1889 D, p. 226.
 Coal-measures; Illinois.
- Helodus coniculus** Newb. and Worth.
Newberry and Worthen 1866 A, p. 75, pl. iv, figs. 19, 19a.
 Kindle, E. M. 1898 A, p. 484.
 Newberry, J. S. 1879 A, p. 344.
 Woodward, A. S. 1889 D, p. 226.
 Subcarboniferous (Keokuk); Illinois; (St. Louis); Indiana; (Burlington); Iowa.
- Helodus consolidatus** Newb. and Worth.
Newberry and Worthen 1866 A, p. 87, pl. vi, figs. 1-2a.

- Hambach, G. 1890 A, p. 81.
 Woodward A. S. 1889 D, p. 226.
 Subcarboniferous (Keokuk); Illinois, Missouri.
- Helodus crenulatus** Newb. and Worth.
Newberry and Worthen 1866 A, p. 82, pl. v, figs. 7, 7a.
 Hambach, G. 1890 A, p. 81.
 Woodward, A. S. 1889 D, p. 226.
 Subcarboniferous (Keokuk); Illinois, Missouri (Ade Hambach).
- Helodus dens-humani** Newb. and Worth.
Newberry and Worthen 1866 A, p. 76, pl. iv, figs. 21-21b.
 Woodward, A. S. 1889 D, p. 226.
 Subcarboniferous (Keokuk); Illinois.
- Helodus denticulatus** Newb. and Worth.
Newberry and Worthen 1866 A, p. 81, pl. v, figs. 6-6b.
 St. John and Worthen 1875 A, p. 817. (Helodus?)
 Woodward, A. S. 1889 D, p. 226.
 Subcarboniferous (Keokuk); Illinois.
- Helodus elytra** Newb. and Worth.
Newberry and Worthen 1866 A, p. 78, pl. iv, fig. 23.
 St. John and Worthen 1875 A, p. 299. (Chomatodus.)
 1888 A, p. 95. (Helodus.)
 Subcarboniferous (Keokuk); Illinois.
- Helodus gibberulus** Agassiz.
 Agassiz, L. 1843 B (1838), III, p. 106, pl. xii, figs. 1, 2.
 Davis, J. W. 1883 A, p. 405, pl. II, fig. 19. (Lophodus.)
 Newberry, J. S. 1889 A, p. 102.
 Trautschold, H. 1874 A, p. 269, pl. xxvi, fig. 9.
 Woodward, A. S. 1889 D, p. 219.
 Carboniferous; Europe: Subcarboniferous (Waverly); Pennsylvania: ("Mountain limestone"); Illinois, Indiana.
- Helodus gibbus** Leidy.
Leidy, J. 1857 H, p. 88, pl. v, fig. 18.
 Woodward, A. S. 1889 D, p. 226.
 Subcarboniferous (Warsaw); Illinois.
- Helodus lævis** Newb.
Newberry, J. S. 1879 A, p. 343.
 Kindle, E. M. 1898 A, p. 484.
 Woodward, A. S. 1889 D, p. 226.
 Subcarboniferous (St. Louis); Indiana.

Helodus limax Newb. and Worth.

Newberry and Worthen 1866 A, p. 80, pl. v, figs. 5-5b.

Woodward, A. S. 1889 D, p. 226.

Subcarboniferous (Burlington); Iowa.

Helodus politus Newb. and Worth.

Newberry and Worthen 1866 A, p. 79, pl. v, fig. 2.

Woodward, A. S. 1889 D, p. 227.

Subcarboniferous (Keokuk); Illinois.

Helodus rugosus Newb. and Worth.

Newberry and Worthen 1870 A, p. 359, pl. ii, figs. 10, 10a.

Woodward, A. S. 1889 D, p. 227.

Coal-measures; Illinois.

VENUSTODUS St. J. and Worth.

St. John and Worthen 1875 A, p. 344.

Miller, S. A. 1889 A, p. 613.

Woodward, A. S. 1889 D, pp. 218-225.

1889 F, p. 298.

Venustodus argutus St. J. and Worth.

St. John and Worthen 1875 A, p. 352, pl. ix, figs. 5, 6.

Lesley, J. P. 1890 A, p. 1250, figures.

Woodward, A. S. 1889 D, p. 228.

Subcarboniferous (Chester); Illinois.

Venustodus robustus St. J. and Worth.

St. John and Worthen 1875 A, p. 345, pl. ix, figs. 15-18.

Lesley, J. P. 1890 A, p. 1251, figures.

Miller, S. A. 1889 A, p. 614, fig. 1177.

Woodward, A. S. 1889 D, p. 228.

Subcarboniferous (Burlington); Iowa.

Venustodus tenuicristatus St. J. and Worth.

St. John and Worthen 1875 A, p. 348, pl. ix, figs. 19-24.

XENODUS S. A. Miller. Type *Goniodus hertzeri* Newb.

Miller, S. A. 1892 A, p. 718.

Hay, O. P. 1899 E, p. 784.

Newberry, J. S. 1889 A, p. 67. (*Goniodus*, not of Agassiz, 1858.)

PERIPLECTRODUS St. J. and Worth.

St. John and Worthen 1875 A, p. 324.

Miller, S. A. 1889, p. 605.

Woodward, A. S. 1889 D, p. 228.

Periplectrodus compressus St. J. and Worth.

St. John and Worthen 1875 A, p. 325, pl. viii, figs. 26-26c.

Lesley, J. P. 1889 A, p. 622, figures.

Woodward, A. S. 1889 D, p. 229.

Subcarboniferous (St. Louis); Illinois.

Periplectrodus expansus St. J. and Worth.**Helodus sulcatus** Newb. and Worth.

Newberry and Worthen 1866 A, p. 83, pl. v, figs. 16, 16a.

Woodward, A. S. 1889 D, p. 221.

Subcarboniferous (Keokuk); Illinois.

Helodus undulatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 82, pl. v, figs. 8-8b.

Woodward, A. S. 1889 D, p. 227.

Subcarboniferous (Keokuk); Illinois.

Helodus wortheni Hay.

Hay, O. P. 1899 E, p. 784.

Newberry and Worthen 1870 A, p. 360, pl. iii, figs. 15, 15a. (*Helodus compressus*; not *H. compressus* Newberry and Worthen 1866 A, p. 78, pl. v, fig. 1=*Hybocladodus compressus*.)

Subcarboniferous (Burlington); Illinois.

Type *Chomatodus venustus* Leidy.

Keyes, C. R. 1894 A, p. 230.

Lesley, J. P. 1890 A, p. 1251, figures.

Woodward, A. S. 1889 D, p. 229.

Subcarboniferous (Keokuk); Illinois, Iowa, Missouri.

Venustodus variabilis St. J. and Worth.

St. John and Worthen 1875 A, p. 346, pl. ix, figs. 7-14.

Lesley, J. P. 1890 A, p. 1252, figures.

Woodward, A. S. 1889 D, p. 229.

Subcarboniferous (Burlington); Illinois, Iowa.

Venustodus venustus (Leidy).

Leidy, J. 1857 H, p. 89, pl. v, figs. 19-21. (*Chomatodus*.)

Hambach, G. 1890 A, p. 81. (*V. leidyi*.)

Lesley, J. P. 1890 A, p. 1250, figures. (*V. leidyi*.)

Miller, S. A. 1889 A, pp. 590, 613, 614.

Newberry and Worthen 1866 A, p. 34.

St. John and Worthen 1875 A, pp. 345, 350, pl. ix, figs. 1-4. (*V. leidyi*.)

Woodward, A. S. 1889 D, p. 228. (*V. leidyi*.)

Subcarboniferous (St. Louis); Illinois, Missouri.

Xenodus hertzeri (Newb.).

Newberry, J. S. 1889 A, p. 69, pl. xxvii, figs. 11-15. (*Goniodus*.)

Miller, S. A. 1892 A, p. 718.

Devonian (Huron Shale); Ohio.

Type *P. warreni* St. J. and Worth.

St. John and Worthen 1875 A, p. 327, pl. viii, figs. 27-27c.

Lesley, J. P. 1889 A, p. 623, figures.

Woodward, A. S. 1889 D, p. 229.

Subcarboniferous (Chester); Illinois.

Periplectrodus warreni St. J. and Worth.

St. John and Worthen 1875 A, p. 325, pl. viii, figs. 25-25c.

Lesley, J. P. 1889 A, p. 624, figures.

Woodward, A. S. 1889 D, p. 229.

Subcarboniferous (Burlington); Iowa.

PSEPHODUS Morris and Roberts. Type *Cochliodus magnus* Portlock.

- Morris and Roberts, 1862, Quart. Jour. Geol. Soc., xviii, p. 101.
 Amer. Geologist 1888 A.
 Davis, J. W. 1882 B, p. 54
 1883 A, p. 438.
 Jaekel, O. 1896 A, p. 50.
 Koninck, L. G. de 1878 A, p. 59.
 Miller, S. A. 1889 A, p. 610 (*Psephodus*); p. 612 (*Tæniodus*, in part.)
 Newberry and Worthen 1866 A, p. 92. (*Aspidodus*, type *A. convolutus*.)
 Nicholson and Lydekker 1889 A, p. 939.
 St. John and Worthen, 1883 A, pp. 59, 68; p. 73 (*Tæniodus*).
 Traquair, R. H. 1885 A.
 1885 B.
 1888 A, p. 84.
 Woodward, A. S. 1884 A, p. 270.
 1889 D, p. 176.
 1892 G, p. 674.
 Zittel, K. A. 1890 A, p. 72.

***Psephodus crenulatus* (Newb. and Worth.).**

- Newberry and Worthen 1866 A, p. 93, pl. viii, figs. 8-11. (*Aspidodus*.)
 Hambach, G. 1890 A, p. 80. (*Aspidodus*.)
 Kindle, E. M. 1898 A, p. 484. (*Aspidodus*.)
 Newberry, J. S. 1879 A, p. 341. (*Aspidodus*.)
 Newberry and Worthen 1866 A, p. 94, pl. viii, figs. 12, 22a. (*Aspid. convolutus*.)
 St. John and Worthen 1875 A, p. 419.
 1883 A, pp. 63, 67, 69.
 Woodward, A. S. 1889 D, p. 184.
 Subcarboniferous (Chester); Illinois, Kentucky, Missouri, Indiana.

***Psephodus latus* St. J. and Worth.**

- St. John and Worthen 1883 A, p. 72, pl. ii, figs. 1-3.
 Keyes, C. R. 1894 A, p. 232.
 Lesley, J. P. 1889 A, p. 791, figures.
 Woodward, A. S. 1889 D, p. 184.
 Subcarboniferous (St. Louis); Illinois, Missouri.

***Psephodus lunulatus* St. J. and Worth.**

- St. John and Worthen 1883 A, p. 74, pl. ii, fig. 4. (*P. cunulatus, errore*).
 Lesley, J. P. 1889 A, p. 791, figures.
 Woodward, A. S. 1889 D, p. 185.
 Subcarboniferous (Chester); Illinois.

SANDALODUS Newb. and Worth. Type, none specified.

- Newberry and Worthen 1866 A, p. 102.
 Davis, J. W. 1883 A, p. 436.
 Koninck, L. G. de 1878 A, p. 62.
 Miller, S. A. 1889 A, p. 612.
 Newberry and Worthen 1866 A, p. 111. (*Trigonodus*, type *T. major*.)
 Nicholson and Lydekker 1889 A, p. 939.
 St. John and Worthen 1883 A, p. 184.
 Woodward, A. S. 1889 D, p. 185.

***Psephodus obliquus* St. J. and Worth.**

- St. John and Worthen 1883 A, p. 66, pl. i, figs. 1-5
 Lesley, J. P. 1889 A, p. 791, figures.
 1895 A, pl. ccxxxii.
 Woodward, A. S. 1889 D, p. 184.
 Subcarboniferous (Kinderhook); Iowa.

***Psephodus placenta* (Newb. and Worth.).**

- Newberry and Worthen 1866 A, p. 80, pl. v, figs. 4, 4a. (*Helodus*.)
 Lesley, J. P. 1889 A, p. 792, figures.
 1895 A, pl. ccxxxii.
 St. John and Worthen 1883 A, p. 69, pl. ii, figs. 5-8.
 Woodward, A. S. 1889 D, p. 184.
 Subcarboniferous (Kinderhook); Iowa.

***Psephodus politus* Newb.**

- Newberry, J. S. 1897 A, p. 301, pl. xxiv, figs. 13-23. [*P.* (*Helodus*); not *H. politus* of Newb. and Worth.]
 Subcarboniferous (Burlington); Illinois.

***Psephodus regularis* (St. J. and Worth.).**

- St. John and Worthen 1883 A, p. 77, pl. xiii, fig. 11. (*Tæniodus*.)
 Kindle, E. M. 1898 A, p. 485. (*Tæniodus*.)
 Lesley, J. P. 1890 A, p. 1173, figs. (*Tæniodus*.)
 1895 A, pl. ccxxxiv. (*Tæniodus*.)
 Woodward, A. S. 1889 D, p. 185.
 Subcarboniferous (Warsaw); Indiana.

***Psephodus?* *reticulatus* St. J. and Worth.**

- St. John and Worthen 1875 A, p. 417, pl. vi, figs. 19-24.
 Lesley, J. P. 1889 A, p. 793, figures.
 1895 A, pl. ccxxxii.
 Woodward, A. S. 1889 D, p. 185.
 Subcarboniferous (Kinderhook); Iowa.

***Psephodus?* *symmetricus* St. J. and Worth.**

- St. John and Worthen 1883 A, p. 71, pl. i, figs. 6-7d.
 Lesley, J. P. 1889 A, p. 793, figures.
 1895 A, pl. ccxxxii.
 Woodward, A. S. 1889 D, p. 185.
 Subcarboniferous (Kinderhook); Iowa.

- Zittel, K. A. 1890 A, p. 72.

***Sandalodus angustus* Newb. and Worth.**

- Newberry and Worthen 1866 A, p. 103, pl. x, fig. 3.
 Lesley, J. P. 1890 A, p. 920, figure.
 1895 A, pl. ccxxxii.
 Woodward, A. S. 1889 D, p. 187.
 Subcarboniferous (Keokuk); Illinois.

Sandalodus crassus (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 91, pl. viii, figs. 2, 2a. (Cochliodus? crassus, not Sandalodus crassus Newb. and Worth. 1870=S. spatulatus Newb. and Worth.)

Keyes, C. R. 1894 A, p. 234. (S. laevissimus, S. crassus.)

Lesley, J. P. 1889 A, p. 789, figure. (Psammodus semicylindricus.)

1890 A, p. 921, figure. (S. grandis, S. laevissimus.)

1895 A, pl. cccxxii (S. grandis); pl. cccxxiii (S. laevissimus).

Newberry, J. S. 1897 A, p. 298 (S. grandis.)

Newberry and Worthen 1866 A, p. 105, pl. x, fig. 9 (Sandalodus grandis); p. 109, pl. xi, figs. 4, 4a (Psammodus? semicylindricus); p. 110, pl. xi, figs. 6, 6a (P? rhomboideus),

St. John and Worthen 1883 A, p. 186, pl. xii, figs. 8, 9. (S. laevissimus.)

Woodward, A. S. 1889 D, p. 188. (S. laevissimus.) Subcarboniferous; Illinois, Iowa, Missouri, Indiana.?

Sandalodus ellipticus Newb.

Newberry, J. S. 1897 A, p. 299, pl. xxiv, fig. 2. Subcarboniferous (Kinderhook); Iowa.

Sandalodus? minor (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 112, pl. xi, figs. 7, 7a. (Trigonodus.)

Kindle, E. M. 1898 A, p. 485.

Lesley, J. P. 1890 A, p. 1219, figures. (Trigonodus.)

Newberry, J. S. 1879 A, p. 341. (Trigonodus.)

ORTHOPLEURODUS St. J. and Worth. Type *Sandalodus carbonarius* Newb. and Worth. = *O. angularis* (Newb. and Worth.).

St. John and Worthen 1883 A, pp. 59, 191.

Miller, S. A. 1889 A, p. 604.

Woodward, A. S. 1889 D, p. 188. (Syn. of Sandalodus.)

Zittel, K. A. 1890 A, p. 72.

Orthopleurodus angularis (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 97, pl. ix, fig. 1. (Deltodus.)

Keyes, C. R. 1894 A, p. 234. (O. carbonarius.)

Kindle, E. M. 1898 A, p. 485. (O. carbonarius.)

Lesley, J. P. 1889 A, p. 568, figures. (O. carbonarius.)

Lesley, J. P. 1890 A, p. 920, figures. (Sandalodus carbonarius.)

1895 A, pl. dlxxi. (O. carbonarius.)

Newberry, J. S. 1889 A, p. 200, pl. xix, fig. 17. (O. carbonarius.)

Newberry and Worthen 1866 A, p. 104, pl. x, figs. 4, 5. (Sandalodus carbonarius.)

St. John, O. 1870 A, p. 436 (Xystrodus? occidentalis); p. 437 (Deltodus? angularis).

Woodward, A. S. 1889 D, p. 185. (Psophodus?).

Subcarboniferous (Keokuk); Illinois, (St. Louis,) Indiana.

Sandalodus parvulus Newb. and Worth.

Newberry and Worthen 1866 A, p. 102, pl. x, fig. 1. Keyes, C. R. 1894 A, p. 233.

Lesley, J. P. 1890 A, p. 921, figures.

St. John and Worthen 1883 A, p. 107, pl. iv, figs. 4-8. (Stenopterodus.)

Woodward, A. S. 1889 D, pp. 190, 217.

Subcarboniferous (St. Louis); Illinois, Missouri.

Sandalodus rhomboideus (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 100, pl. ix, fig. 8. (Deltodus.)

Keyes, C. R. 1894 A, p. 234. (S. spatulatus.)

Lesley, J. P. 1889 A, p. 789, figure. (Psammodus.) 1890 A, p. 922, figures. (S. spatulatus.)

Miller, S. A. 1889 A, p. 612, fig. 1175. (S. spatulatus.)

Newberry, J. S. 1889 A, p. 204, pl. xxi, figs. 6-8. (S. crassus.)

Newberry and Worthen 1866 A, p. 103, pl. x, fig. 2. (S. spatulatus.)

1870 A, p. 369, pl. iv, figs. 3, 3a. (S. crassus.)

St. John and Worthen 1883 A, p. 188, pl. xii, fig. 7. (S. spatulatus.)

Woodward, A. S. 1889 D, p. 190. (S. spatulatus.) Subcarboniferous (St. Louis), Illinois, Missouri.

Sandalodus sp?

St. John and Worthen 1883 A, p. 187, pl. xii, figs. 5, 6.

Subcarboniferous (Warsaw); Illinois.

St. John, O. 1872 A, p. 244, pl. iv, figs. 18a-18d (Xystrodus occidentalis.)

St. John and Worthen 1883 A, pp. 177, 192, pl. xiii, figs. 6, 8. (O. carbonarius.)

Woodward, A. S. 1889 D, p. 188. (O. carbonarius.)

Coal-measures; Indiana, Illinois, Iowa, Missouri, Kansas, and Nebraska.

Orthopleurodus convexus St. J. and Worth.

St. John and Worthen 1883 A, p. 193, pl. xii, figs. 4, 5.

Lesley, J. P. 1889 A, p. 569, figures.

Woodward, A. S. 1889 D, p. 190. (Sandalodus.)

Coal-measures; West Virginia.

Orthopleurodus novo-mexicanus St. J. and Worth.

St. John and Worthen 1883 A, p. 195, pl. xiii, figs. 1-3.

Lesley, J. P. 1889 A, p. 569, figures.

Woodward, A. S. 1889 D, p. 190 (Sandalodus).

Subcarboniferous; New Mexico.

PLATYODUS Newb. Type *P. lineatus* Newb.

Newberry, J. S. 1875 A, p. 58.

Miller, S. A. 1889 A, p. 606.

Woodward, A. S. 1889 D, p. 191.

Platyodus lineatus Newb.,

Newberry, J. S. 1875 A, p. 58, pl. lix, figures 1, 2.

VATICINODUS St. J. and Worth. Type *V. vetustus* St. J. and Worth.

St. John and Worthen 1883 A, pp. 59, 80.

Miller, S. A. 1889 A, p. 618.

Woodward, A. S. 1889 D, pp. 186, 190.

Zittel, K. A. 1890 A, p. 69.

Vaticinodus? carbonarius St. J. and Worth.

St. John and Worthen 1883 A, p. 88, pl. iv, fig. 20.

Lesley, J. P. 1890 A, p. 1247, figure.

Woodward, A. S. 1889 D, p. 190.

Lower Coal-measures; Illinois.

Vaticinodus discrepans St. J. and Worth.

St. John and Worthen 1883 A, p. 83, pl. iii, figs. 2, 3.

Lesley, J. P. 1890 A, p. 1247, figure.

Woodward, A. S. 1889 D, p. 190.

Subcarboniferous (Burlington); Iowa.

Vaticinodus? lepis St. J. and Worth.

St. John and Worthen 1883 A, p. 88, pl. iv, fig. 21.

Lesley, J. P. 1890 A, p. 1249, figure.

Lesley, J. P. 1889 A, p. 691, figure.

Miller, S. A. 1889 A, p. 607, figure 1150.

Subcarboniferous (Waverly); Kentucky.

Woodward, A. S. 1889 D, p. 191.

Upper Coal-measures; Illinois.

Vaticinodus? similis St. J. and Worth.

St. John and Worthen 1883 A, p. 86, pl. iv, figs. 17-19.

Lesley, J. P. 1890 A, p. 1249, figures.

Woodward, A. S. 1889 D, p. 191.

Subcarboniferous (Chester); Illinois.

Vaticinodus? simplex St. J. and Worth.

St. John and Worthen 1883 A, p. 84, pl. iv, figs. 22-26.

Keyes, C. R. 1894 A, p. 233.

Lesley, J. P. 1890 A, p. 1250, figures.

Woodward, A. S. 1889 D, p. 191.

Subcarboniferous (St. Louis); Illinois, Missouri, Iowa.

Vaticinodus vetustus St. J. and Worth.

St. John and Worthen, 1883 A, p. 82, pl. iii, fig. 1.

Lesley, J. P. 1890 A, p. 1250.

Newberry, J. S. 1897 A, p. 300.

Woodward, A. S. 1889 D, pp. 186, 190. (Sandolodus.)

Subcarboniferous (Kinderhook); Iowa.

PLATYXYSTRODUS Hay. Type *Cochilodus striatus* McCoy.

Hay, O. P. 1899 E, p. 785.

Davis, J. W. 1886 A, p. 158. (Xystrodus; not of Plieninger, 1880.)

Miller, S. A. 1889 A, p. 614. (Xystrodus.)

Morris and Roberts, 1862, Quart. Jour. Geol. Soc., xviii, p. 101. (Xystrodus, type *Cochilodus striatus* McCoy.)

St. John and Worthen 1883 A, pp. 59, 175. (Xystrodus.)

Woodward, A. S. 1889 D, p. 192. (Xystrodus.)

Zittel, K. A. 1890 A, p. 72. (Xystrodus.)

Platyxystrodus bellulus (St. J. and Worth.).

St. John and Worthen 1883 A, p. 183, pl. viii, fig. 3. (Xystrodus.)

Hay, O. P. 1899 E, p. 785.

Lesley, J. P. 1890 A, p. 1264, figs. (Xystrodus.)

Woodward, A. S. 1889 D, p. 195. (Xystrodus.)

Lower Coal-measures; Illinois.

Platyxystrodus imitatus (St. J. and Worth.).

St. John and Worthen 1883 A, p. 180, pl. viii, fig. 2. (Xystrodus.)

Hay, O. P. 1899 E, p. 785.

Keyes, C. R. 1894 A, p. 233. (Xystrodus.)

Lesley, J. P.; 1890 A, p. 1264, figure. (Xystrodus.)

Woodward, A. S. 1889 D, p. 195. (Xystrodus.)

Subcarboniferous (St. Louis); Illinois, Iowa, Missouri.

Platyxystrodus inconditus (St. J. and Worth.).

St. John and Worthen 1883 A, p. 179, pl. viii, fig. 1. (Xystrodus.)

Hay, O. P. 1899 A, p. 785.

Lesley, J. P. 1890 A, p. 1264, figure. (Xystrodus.)

Woodward, A. S. 1889 D, p. 195. (Xystrodus.)

Subcarboniferous (Keokuk); Illinois, Iowa.

Platyxystrodus simplex (St. J. and Worth.).

St. John and Worthen 1883 A, p. 178, pl. viii, figs. 4, 5. (Xystrodus.)

Davis, J. W. 1886 A, p. 153. (Xystrodus.)

Hay, O. P. 1899 E, p. 785.

Lesley, J. P. 1890 A, p. 1265, figure. (Xystrodus.)

Woodward, A. S. 1889 D, p. 195. (Xystrodus.)

Subcarboniferous (Burlington); Illinois, Iowa.

Platyxystrodus verus (St. J. and Worth.).

St. John and Worthen 1883 A, p. 181, pl. viii, figs. 6, 7. (Xystrodus.)

Hay, O. P. 1899 E, p. 785.

Lesley, J. P. 1890 A, p. 1265, figure. (Xystrodus.)

Woodward, A. S. 1889 D, p. 194. (Xystrodus.)

Subcarboniferous (Chester); Illinois.

ICANODUS S. A. Miller. Type *Tomodus convexus* St. J. and Worth.

- Miller, S. A. 1892 A, p. 716.
 Davis, J. W. 1883 A, p. 446. (Tomodus, preoccupied by Trautschold, 1879.)
 1886 A, p. 153. (Tomodus.)
 Hay, O. P. 1899 E, p. 785.
 Miller, S. A. 1889 A, p. 618. (Tomodus.)
 St. John and Worthen 1883 A, pp. 59, 171. (Tomodus.)
 Woodward, A. S. 1889 D, p. 191. (Tomodus.)
 Zittel, K. A. 1890 A, p. 72. (Tomodus.)

Icanodus limitaris (St. J. and Worth).

- St. John and Worthen 1883 A, p. 173, pl. xiii, fig. 12. (Tomodus; called on explanation of plate "Teniodus regularis.")
 Hay, O. P. 1899 E, p. 785.
 Miller, S. A. 1892 A, p. 716.
 Woodward, A. S. 1889 D, p. 192. (Tomodus.)
 Subcarboniferous (Burlington); Iowa.

STENOPTERODUS St. J. and Worth. Type, none specified; *S. planus* St. J. and Worth. may be taken.

- St. John and Worthen 1883 A, pp. 59, 101.
 Miller, S. A. 1889 A, p. 612.
 Woodward, A. S. 1889 D, p. 217.

Stenopterodus elongatus St. J. and Worth.

- St. John and Worthen 1883 A, p. 106, pl. iv, figs. 1-3.
 Woodward, A. S. 1889 D, p. 217.
 Subcarboniferous (Warsaw); Illinois.

Stenopterodus planus St. J. and Worth.

- St. John and Worthen 1883 A, p. 102, pl. iv, figs. 9-14.
 Woodward, A. S. 1889 D, p. 217.
 Subcarboniferous (Burlington); Illinois, Iowa.

Stenopterodus spindel.

- St. John and Worthen 1883 A, p. 105, pl. iv, figs. 15, 16.
 Subcarboniferous (Keokuk); Illinois.

DELTODOPSIS St. J. and Worth. Type *D. angustus* (Newb. and Worth.).

- St. John and Worthen 1883 A, p. 158.
 Miller, S. A. 1889 A, p. 595.
 Newberry, J. S. 1890 A, p. 186.
 Woodward, A. S. 1889 D, p. 217.
 Zittel, K. A. 1890 A, p. 72.

Deltodopsis affinis St. J. and Worth.

- St. John and Worthen 1883 A, p. 160, pl. xi, fig. 1.
 Woodward, A. S. 1889 D, p. 217.
 Subcarboniferous (Warsaw); Illinois.

Deltodopsis angustus (Newb. and Worth.).

- Newberry and Worthen 1870 A, p. 368, pl. iii, fig. 7. (Deltodus.)
 St. John and Worthen 1883 A, p. 163, pl. xi, figs. 7-10.
 Woodward, A. S. 1889 D, pp. 200, 218. (Deltodus.)
 Subcarboniferous (Chester); Illinois.

Deltodopsis? bialveatus St. J. and Worth.

- St. John and Worthen 1883 A, p. 169, pl. xi, figs. 15-18. (Including varieties *keokuk* and *convexus*.)
 Woodward, A. S. 1889 D, p. 217.
 Subcarboniferous (Burlington); Iowa; (St. Louis); Illinois.

Deltodopsis convolutus St. J. and Worth.

- St. John and Worthen 1883 A, p. 165, pl. xi, figs. 11, 12.
 Woodward, A. S. 1889 D, p. 217.
 Subcarboniferous (Burlington); Iowa, Illinois.

Deltodopsis? exornatus St. J. and Worth.

- St. John and Worthen 1883 A, p. 168, pl. xi, fig. 14.
 Woodward, A. S. 1889 D, p. 218.
 Subcarboniferous (Warsaw); Illinois.

Deltodopsis? inflexus St. J. and Worth.

- St. John and Worthen 1883 A, p. 167, pl. xi, fig. 13.
 Woodward, A. S. 1889 D, p. 218.
 Subcarboniferous (Keokuk); Illinois.

Deltodopsis sancti-ludovici St. J. and Worth.

- St. John and Worthen 1883 A, p. 161, pl. xi, figs. 2-6.
 Keyes, C. R. 1894 A, p. 235.
 Woodward, A. S. 1889 D, p. 218.
 Subcarboniferous (St. Louis); Illinois, Iowa, Missouri.

DELTODUS Morris and Roberts. Type *Pecilodus sublaevis* (McCoy).

- Morris and Roberts, 1862, Quart. Jour. Geol. Soc., xviii, p. 100. (Ex Agassiz MSS.)
 Davis, J. W. 1883 A, p. 427.
 Koninck, L. G. de 1878 A, p. 63.
 Miller, S. A. 1889 A, p. 595 (Deltodus); p. 612 (Teniodus).

- Newberry, J. S. 1890 A, p. 186.
 Newberry and Worthen 1866 A, p. 95.
 St. John and Worthen 1883 A, pp. 60, 141 (Deltodus); pp. 59, 75 (Teniodus).
 Traquair, R. H. 1888 A, p. 84.
 Trautschold, H. 1879 B, p. 54.

Woodward, A. S. 1884 A, p. 270.

1889 A, p. 195.

1892 G, fig. 6.

Woodward and Sherborn 1890 A, p. 60.

Zittel, K. A. 1890 A, p. 73.

***Deltodus alatus* Newb. and Worth.**

Newberry and Worthen 1870 A, p. 368, pl. ii, fig. 6.

Woodward, A. S. 1889 D, p. 199.

Subcarboniferous (Keokuk); Illinois.

***Deltodus cinctulus* St. J. and Worth.**

St. John and Worthen 1883 A, p. 146, pl. ix, figs. 6, 7.

Keyes, C. R. 1894 A, p. 235.

Kindle, E. M. 1898 A, p. 484.

Woodward, A. S. 1889 D, p. 200.

Subcarboniferous (Warsaw); Illinois, Missouri, Indiana.

***Deltodus cinctus* Newb.**

Newberry, J. S. 1879 A, p. 344.

Woodward, A. S. 1889 D, p. 200.

Subcarboniferous (St. Louis); Iowa.

***Deltodus cingulatus* Newb. and Worth.**

Newberry and Worthen 1866 A, p. 99, pl. ix, fig. 6.

Woodward, A. S. 1889 D, p. 200.

Subcarboniferous (Chester); Illinois.

***Deltodus complanatus* Newb. and Worth.**

Newberry and Worthen 1866 A, p. 98, pl. ix, fig. 4.

Koninck, L. G. de 1878 A, p. 64.

Lesley, J. P. 1890 A, p. 920, figure (Sandalodus); p. 1218, figures (Trigonodus major).

1896 A, pl. ccxxxiii. (Sandalodus.)

Newberry, J. S. 1897 A, p. 298, pl. xxiv, figs. 1-7.

Newberry and Worthen 1866 A, p. 112, pl. xi, 8-9a. (Trigonodus major.)

St. John and Worthen 1883 A, p. 184, pl. xii, figs. 1-4. (Sandalodus.)

Woodward, A. S. 1889 D, p. 189. (Sandalodus.)

Subcarboniferous (Burlington); Iowa.

***Deltodus fasciatus* Newb. and Worth.**

Newberry and Worthen 1870 A, p. 366, pl. iii, fig. 17.

Lesley, J. P. 1890 A, p. 1172, figures. (Teniodus fasciatus.)

1896 A, pl. ccxxxiv. (Teniodus fasciatus.)

St. John and Worthen 1883 A, p. 76, pl. xiii, fig. 9. (Teniodus fasciatus?)

Woodward, A. S. 1889 D, p. 200.

Subcarboniferous (Keokuk); Illinois.

***Deltodus grandis* Newb.**

Newberry, J. S. 1879 A, p. 344.

Kindle, E. M. 1898 A, p. 484 (D. grandis?).

Newberry, J. S. 1897 A, p. 297.

Newberry & Worthen 1866 A, p. 101, pl. ix, figs. 9, 9a.

Woodward, A. S., 1889 D, p. 188. (Syn. of Sandalodus laevisimus.)

Subcarboniferous (Keokuk); Illinois, Indiana.

***Deltodus inornatus* Newb.**

Newberry, J. S. 1897 A, p. 298, pl. xxiii, figs. 10, 11.

Subcarboniferous (Kinderhook); Iowa.

***Deltodus intermedius* St. J. and Worth.**

St. John and Worthen 1883 A, p. 153, pl. ix, figs. 14, 15.

Keyes, C. H. 1891 A, p. 265. (D. intermedius?)

Woodward, A. S. 1889 D, p. 200.

Subcarboniferous (St. Louis); Illinois, Iowa; Coal-measures; Iowa.

***Deltodus latior* St. J. and Worth.**

St. John and Worthen 1883 A, p. 145, pl. ix, figs. 11, 12.

Woodward, A. S. 1889 D, p. 200.

Subcarboniferous (Keokuk); Illinois, Iowa.

***Deltodus littoni* Newb. and Worth.**

Newberry and Worthen 1870 A, p. 367, pl. iv, figs. 8, 8a.

Keyes, C. R. 1894 A, p. 235.

St. John and Worthen 1883 A, p. 149.

Woodward, A. S. 1889 D, p. 200.

Subcarboniferous; Missouri.

***Deltodus mercurii* Newb.**

Newberry, J. S. 1876 A, p. 137, pl. iii, figs. 1, 1a.

St. John and Worthen 1883 A, pl. x, figs. 2-2d.

Woodward, A. S. 1889 D, p. 200.

Coal-measures; New Mexico.

***Deltodus obliquus* (St. J. and Worth.).**

St. John and Worthen 1883 A, p. 78, pl. xiii, fig. 10. (Teniodus.)

Lesley, J. P. 1890 A, p. 1173, figures. (Teniodus.) 1896 A, pl. ccxxxiv. (Teniodus.)

Woodward, A. S. 1889 D, p. 201.

Subcarboniferous (Warsaw); Indiana.

***Deltodus occidentalis* (Leidy).**

Leidy, J. 1857 N, p. 83, pl. v, figs. 3-16. (Cochliodus.)

Newberry and Worthen 1866 A, p. 97, pl. ix, figs. 2-3a. (D. stellatus.)

St. John and Worthen 1883 A, p. 150, pl. ix, figs. 9, 10. (D. occidentalis?)

Woodward, A. S. 1889 D, p. 199.

Subcarboniferous; Illinois.

***Deltodus parvus* St. J. and Worth.**

St. John and Worthen 1883 A, p. 151, pl. ix, figs. 1-5.

Keyes, C. R. 1894 A, p. 235.

Woodward, A. S. 1889 D, p. 201.

Subcarboniferous (St. Louis); Illinois, Iowa, Missouri.

***Deltodus planidens* Cope.**

Cope, E. D. 1894 F, p. 435, pl. xx, fig. 6.

Carboniferous?; Texas.

***Deltodus powellii* St. J. and Worth.**

St. John and Worthen 1883 A, p. 155, pl. x, fig. 1-1f

Woodward, A. S. 1889 D, p. 201.

Carboniferous; Utah.

Deltodus propinquus St. J. and Worth.

St. John and Worthen 1883 A, p. 156, pl. x, figs. 3, 4.
Woodward, A. S. 1889 D, p. 201.
 1900 C, p. 420.
 Coal-measures; Illinois.

Deltodus spatulatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 100, pl. ix, fig. 7.
Kindle, E. M. 1898 A, p. 484.
Newberry, J. S. 1879 A, p. 346.
 1897 A, p. 299, pl. xxiv, figs. 8-11.
St. John and Worthen 1883 A, p. 166.

Woodward, A. S. 1889 D, p. 199.

Subcarboniferous; Illinois, Indiana.

Deltodus trilobus St. J. and Worth.

St. John and Worthen 1883 A, p. 148, pl. ix, fig. 8.
Woodward, A. S. 1889 D, p. 201.
 Subcarboniferous (Warsaw); Illinois.

Deltodus undulatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 98, pl. ix, fig. 5.
Woodward, A. S. 1889 D, p. 201.
 Subcarboniferous (Keokuk); Iowa.

CHITINODUS St. J. and Worth. Type *C. springeri* St. J. and Worth.

St. John and Worthen 1883 A, pp. 60, 109.
Miller, S. A. 1889 A, p. 590.
Woodward, A. S. 1889 D, p. 217.
Zittel, K. A. 1890 A, p. 70.

Chitinodus antiquus St. J. and Worth.

St. John and Worthen 1883 A, p. 116, pl. vi, fig. 2.
Woodward, A. S. 1889 D, p. 217.
 Subcarboniferous (Burlington); Iowa.

Chitinodus latus (Leidy).

Leidy, J. 1857 H, p. 88, pl. v, fig. 17. (Cochliodus.)
Dana, J. D. 1896 A, p. 644, fig. 1018. (Cochliodus nobilis.)
Newberry, J. S. 1897 A, p. 301, pl. xxiv, fig. 24. (Helodus coxanus.)
Newberry and Worthen 1866 A, p. 88, pl. vi, figs. 3-6 [Helodus (Cochliodus) nobilis]; p. 89, pl. vii, figs. 1-4; pl. viii, fig. 1 (Cochliodus nobilis).
 1870 A, p. 365 (Cochliodus nobilis).
St. John and Worthen 1883 A, pp. 112, 124.
Woodward, A. S. 1889 D, p. 206. (Cochliodus.)
Zittel, K. A. 1890 A, p. 70. (Chitinodus nobilis.)
 Subcarboniferous (Keokuk); Illinois, Iowa.

Chitinodus liratus St. J. and Worth.

St. John and Worthen 1883 A, p. 119, pl. vi, fig. 1.
Woodward, A. S. 1889 D, p. 217.
 Subcarboniferous (St. Louis); Illinois.

Chitinodus rugosus Newb. and Worth.

Newberry and Worthen 1866 A, p. 94, pl. viii, fig. 13. (Pœclilodus.)
 1866 A, p. 95, pl. viii, fig. 14. (Pœclilodus ornatus.)
St. John and Worthen 1883 A, p. 112. (P. rugosus and P. ornatus to C. rugosus.)
Woodward, A. S. 1889 D, p. 201 (P. ornatus to Deltodus ornatus); p. 205 (P. rugosus); p. 217.
 Subcarboniferous (Keokuk); Illinois.

Chitinodus springeri St. J. and Worth.

St. John and Worthen 1883 A, p. 112, pl. vi, figs. 3-15.
Woodward, A. S. 1889 D, p. 217.
 Subcarboniferous (Burlington); Illinois, Iowa.

Chitinodus tribulis St. J. and Worth.

St. John and Worthen 1883 A, p. 117, pl. vii, figs. 18-21.
Woodward, A. S. 1889 D, p. 217.
 Subcarboniferous (Keokuk); Illinois, Iowa.

PŒCILODUS McCoy. Type *P. jonesii* McCoy.

McCoy, F. 1848 A, p. 129.
Barkas, T. P. 1873 A, p. 19.
Davis, J. W. 1883 A, pp. 413, 441.
McCoy, F. 1855 A, p. 638.
Miller, S. A. 1889 A, p. 607.
Pictet, F. J. 1854 A, p. 270.
Traquair, R. H. 1888 A, p. 84.
Trautschold, H. 1874 B, p. 290.
Woodward, A. S. 1889 D, p. 201.
 1892 G, p. 674.
Zittel, K. A. 1890 A, p. 70.

Pœcilodus carbonarius St. J. and Worth.

St. John and Worthen 1883 A, p. 139, pl. viii, figs. 20-21.
Lesley, J. P. 1889 A, p. 727, figures.
Woodward, A. S. 1889 D, p. 204.
 Upper Coal-measures; Illinois, Kansas.

Pœcilodus cestriensis St. J. and Worth.

St. John and Worthen 1883 A, p. 135, pl. viii, figs. 15-17.

Lesley, J. P. 1889 A, p. 727, figures.

Woodward, A. S. 1889 D, p. 205.

Subcarboniferous (Chester); Illinois.

Pœcilodus convolutus Newb. and Worth.

Newberry and Worthen 1870 A, p. 366, pl. ii, fig. 9.
Woodward, A. S. 1889 D, p. 205.
 Subcarboniferous (Keokuk); Illinois.

Pœcilodus sancti-ludovici St. J. and Worth.

St. John and Worthen 1883 A, p. 132, pl. viii, figs. 8-12.

Keyes, C. R. 1894 A, p. 235.

Lesley, J. P. 1889 A, p. 728, figures.

Woodward, A. S. 1889 D, p. 205.

Subcarboniferous (St. Louis); Illinois, Missouri, Iowa.

Pœcilodus springeri St. J. and Worth.

St. John and Worthen 1883 A, p. 138, pl. viii, fig. 19.
Lesley, J. P. 1889 A, p. 728, figures.

Woodward, A. S. 1889 D, p. 205, 215. (*Deltoptychius*.)
Subcarboniferous; New Mexico.

***Pœcilodus varsoviensis* St. J. and Worth.**

St. John and Worthen 1883 A, p. 131, pl. viii, figs. 13, 14.
Lesley, J. P. 1889 A, p. 723, figures.

Woodward, A. S. 1889 D, p. 205.
Subcarboniferous (Warsaw); Illinois.

***Pœcilodus wortheni* St. John.**

St. John, in *St. John and Worthen* 1883 A, p. 136, pl. viii, fig. 18.
Lesley, J. P. 1889 A, p. 723, figures.
Woodward, A. S. 1889 D, pp. 205, 215. (*Deltoptychius*.)
Subcarboniferous (Chester); Illinois.

COCHLIODUS Agassiz. Type *C. contortus* Agassiz.

Agassiz, L. 1843 B (1838), iii, p. 118.
1844 A.

Amer. Geologist 1888 A, p. 133.

Davis, J. W. 1882 B, p. 54.
1883 A, p. 420.

Jaekel, O. 1891 B, p. 128.

Koninck, L. G. de 1878 A, p. 56.

McCoy, F. 1853 B.
1855 A, p. 621.

Miller, S. A. 1889 A, p. 591.

Newberry, J. S. 1889 A, p. 186.

Newberry and Worthen 1866 A, pp. 74, 89.

Nicholson and Lydekker 1889 A, p. 940.

Owen, R. 1845 B, p. 82, pl. xxii, fig. 1.

1860 E, p. 109.

1867 A.

Pictet, F. J. 1854 A, p. 267.

St. John and Worthen 1883 A, p. 58.

Steinmann and Döderlein 1890 A, p. 550.

Traquair, R. H. 1888 A, p. 84.

Trautschold H. 1874 B, p. 291.

Woodward, A. S. 1884 A, p. 269.

1889 D, p. 205.

1892 G, fig. 3.

Zittel, K. A. 1890 A, pp. 69, 71.

***Cochliodus costatus* Newb. and Worth.**

Newberry and Worthen 1870 A, p. 364, pl. iii, figs. 10-12, 12a.

St. John and Worthen 1883 A, pp. 167, 171.

Woodward, A. S. 1889 D, p. 208.

Subcarboniferous (Burlington); Iowa.

***Cochliodus leidy* St. J. and Worth.**

St. John and Worthen 1883 A, p. 127, pl. vii, figs. 11-16.

Woodward, A. S. 1889 D, p. 208.

Subcarboniferous (Chester); Illinois.

***Cochliodus obliquus* St. J. and Worth.**

St. John and Worthen 1883 A, p. 126, pl. vii, fig. 17.

Keyes, C. R. 1894 A, p. 233.

Woodward, A. S. 1889 D, p. 212.

Subcarboniferous (St. Louis); Missouri.

***Cochliodus vanhornii* St. J. and Worth.**

St. John and Worthen 1883 A, p. 121, pl. vii, figs. 1-10.

Keyes, C. R. 1894 A, p. 233.

Woodward, A. S. 1889 D, p. 208.

Subcarboniferous (St. Louis); Illinois, Iowa, Missouri.

DELTOPTYCHIUS Davis. Type *Cochliodus acutus* McCoy.

Davis, J. W. 1883 A, p. 432.

Miller, S. A. 1889 A, p. 595.

St. John and Worthen 1883 A, pp. 59, 89.

Woodward, A. S. 1889 D, p. 212.

1892 G, p. 674.

Woodward and Sherborn 1890 A, p. 61.

Zittel, K. A. 1890 A, p. 70.

***Deltoptychius expansus* St. J. and Worth.**

St. John and Worthen 1883 A, p. 98, pl. v, figs. 9, 13.

Keyes, C. R. 1894 A, p. 233.

Woodward, A. S. 1889 D, pp. 212, 215.

Subcarboniferous (St. Louis); Illinois, Missouri, Iowa.

***Deltoptychius nitidus* (Leidy).**

Leidy, J. 1857 A, p. 87, pl. v, fig. 2 (*Cochliodus*).

St. John and Worthen 1883 D, p. 99, pl. v, fig. 16.

Woodward, A. S. 1889 D, p. 215.

Subcarboniferous (Chester); Illinois.

***Deltoptychius primus* St. J. and Worth.**

St. John and Worthen 1883 A, p. 93, pl. v, figs. 6-8.

Woodward A. S. 1889 D, pp. 212, 215.

Subcarboniferous (Burlington); Iowa.

***Deltoptychius varsoviensis* St. J. and Worth.**

St. John and Worthen 1883 A, p. 96, pl. v, figs. 14, 15.

Woodward, A. S. 1889 D, pp. 212, 215.

Subcarboniferous (Warsaw); Illinois.

***Deltoptychius wachsmuthi* St. J. and Worth.**

St. John and Worthen 1883 A, p. 93, pl. v, figs. 1-5.

Keyes, C. R. 1894 A, p. 233.

Lesley, J. P. 1889 A, p. 193, figure.

1895 A, pl. ccxlix.

Miller, S. A. 1889 A, p. 595, fig. 1124.

Woodward, A. S. 1889 D, pp. 209, 212, 215.

Subcarboniferous (Keokuk); Illinois, Iowa, Missouri.

ORODONTIDÆ.

Davis, J. W. 1882 B.

1883 A, pp. 331, 386.

Koninck, L. G. de 1878 A, p. 29.

Traquair, R. H. 1888 A, p. 84.

Ward, J. 1890 A, p. 34.

Woodward, A. S. 1884 A, p. 269.

Zittel, K. A. 1890 A, p. 74. (Cestracionidæ, in part.)

Orodus Agassiz. Type *O. cinctus* Agassiz.

Agassiz, L. 1843 B (1838), iii, p. 96.
1844 A.

Davis, J. W. 1882 B, p. 49.
1883 A, p. 390.

Eastman, C. R. 1900 C, p. 392.

Hasse, C. 1878 A, p. 145.

Jaekel, O. 1890 A, p. 93.
1899 A.

Koninck, L. G. de. 1844 A, p. 612.
1878 A, p. 29.

Miller, S. A. 1889 A, p. 608.

Newberry and Worthen 1866 A, p. 62.
Nicholson and Lydekker 1889 A, p. 940.

Owen, R. 1860 E, p. 108.

Pictet, F. J. 1854 A, p. 263.

Quenstedt, F. A. 1885 A, p. 294.

Trautschold, H. 1874 B, p. 292.

Woodward, A. S. 1884 A, p. 269.
1889 D, p. 230.

Woodward and Sherborn 1890 A, pp. 49, 182.

Zittel, K. A. 1890 A, p. 75.

Orodus alleni St. J. and Worth.

St. John and Worthen 1875 A, pp. 310, 318, pl. vii, fig. 19.

Woodward, A. S. 1889 D, p. 236.
Lower Coal-measures; Iowa.

Orodus carinatus St. J. and Worth.

St. John and Worthen 1875 A, p. 307, pl. v, figs. 24a-24d.

Woodward, A. S. 1889 D, p. 236.
Subcarboniferous (Keokuk); Iowa.

Orodus colletti Newb.

Newberry, J. S. 1879 A, p. 343.

Kindle, E. M. 1898 A, p. 484.

Woodward, A. S. 1889 D, p. 236.
Subcarboniferous (St. Louis); Indiana.

Orodus dædaleus St. J. and Worth.

St. John and Worthen 1875 A, p. 301, pl. vi, figs. 7, 8.

Woodward, A. S. 1889 D, p. 237.
Subcarboniferous (Kinderhook); Iowa.

Orodus decussatus St. J. and Worth.

St. John and Worthen 1875 A, p. 300, pl. vi, figs. 10-15.

Woodward, A. S. 1889 D, p. 237.
Subcarboniferous (Kinderhook); Iowa.

Orodus elegantulus Newb. and Worth.

Newberry and Worthen 1866 A, p. 64, pl. iv, figs. 6, 6a.

Kindle, E. M. 1898 A, p. 484.

Lealey, J. P. 1889 A, p. 505, figure.

Newberry, J. S. 1875 A, p. 51, pl. lviii, figs. 12, 12a.
1879 A, p. 346.

Woodward, A. S. 1889 D, p. 235.
Subcarboniferous; Iowa, Indiana, Ohio.

Orodus fastigiatus St. J. and Worth.

St. John and Worthen 1875 A, p. 306, pl. vi, figs. 1-3.

Woodward, A. S. 1889 D, p. 237.
Subcarboniferous (Burlington); Iowa.

Orodus gibbosus (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 79, pl. v, figs. 8-8a. (Helodus.)

Miller, S. A. 1889 A, p. 599, fig. 1137. (Helodus.)
St. John and Worthen 1875 A, p. 305. (Orodus.)

Woodward, A. S. 1889 D, p. 238. (O. variocostatus?)
Subcarboniferous (Keokuk); Illinois, Iowa.

Orodus major St. J. and Worth.

St. John and Worthen 1875 A, p. 302, pl. vii, fig. 10.
Koninck, L. G. de 1878 A, p. 30. (Syn. of O. ramosus.)

Woodward, A. S. 1889 D, p. 237.
Subcarboniferous (Burlington); Iowa.

Orodus mammillaris Newb. and Worth.

Newberry and Worthen 1866 A, p. 66, pl. iv, figs. 10, 10a.

Dana, J. D. 1896 A, p. 644, fig. 1022.

Woodward, A. S. 1889 D, p. 235.
Subcarboniferous (Keokuk); Illinois.

Orodus minutus Newb. and Worth.

Newberry and Worthen 1866 A, p. 68, pl. iv, fig. 12.
Woodward, A. S. 1889 D, p. 237.

Subcarboniferous (Keokuk); Illinois.

Orodus neglectus St. J. and Worth.

St. John and Worthen 1875 A, p. 308, pl. vi, fig. 26.
Woodward, A. S. 1889 D, p. 237.
Subcarboniferous (St. Louis); Illinois, Iowa.

Orodus ornatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 65, pl. iv, figs. 7-8a.
Kindle, E. M. 1898 A, p. 484.

Newberry, J. S. 1879 A, p. 346.

Woodward, A. S. 1889 D, p. 233.
Subcarboniferous (Keokuk); Illinois, Indiana.

Orodus ? parallelus St. J. and Worth.

St. John and Worthen 1875 A, p. 295, pl. v, fig. 23.
Woodward, A. S. 1889 D, p. 237.

Subcarboniferous (Kinderhook); Iowa.

Orodus parvulus St. J. and Worth.

St. John and Worthen 1875 A, p. 309, pl. vi, fig. 6.
Woodward, A. S. 1889 D, p. 237.

Subcarboniferous (St. Louis); Illinois.

Orodus plicatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 63, pl. iv, fig. 5.
Hambach, G. 1890 A, p. 81.
Woodward, A. S. 1889 D, p. 237.
Subcarboniferous (St. Louis); Missouri.

Orodus ramosus Agassiz.

Agassiz, L. 1843 B (1838), III, p. 97, pl. xi, figs. 5-8.
Davis, J. W. 1883 A, p. 390, pl. 1, figs. 1-7 (O. ramosus); p. 399, pl. II, fig. 15 (O. subteres).
Kindle, E. M. 1898 A, p. 484. (O. multicarinatus).
Koninck, L. G. de 1844 A, p. 613, pl. iv, fig. 2.
1878 A, p. 30, pl. iv, fig. 1.
Newberry, J. S. 1889 A, pp. 185, 205, pl. xxvii, fig. 29.
Newberry and Worthen 1866 A, p. 62, pl. iv, figs. 13-13a. (O. multicarinatus).
Romanovsky, G. 1864 A, p. 157, fig. 2.
Woodward, A. S. 1889 D, p. 231 (O. ramosus); p. 237 (O. ? multicarinatus).
Subcarboniferous; Europe, Indiana, Michigan.

Orodus tuberculatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 66, pl. iv, figs. 9, 9a.
Woodward, A. S. 1888 D, p. 234.
Subcarboniferous (Burlington); Illinois, Iowa.

LEIODUS St. J. and Worth. Type *L. calcaratus*, St. J. and Worth.

St. John and Worthen 1875 A, p. 335.
Miller, S. A. 1889 A, p. 600. (Liodus.)
Woodward, A. S. 1889 D, p. 240.

Leiodus calcaratus St. J. and Worth.

St. John and Worthen 1875 A, p. 336, pl. vii, figs. 11-18.
Miller, S. A. 1889 A, p. 600, fig. 1141. (Liodus.)

CAMPODUS Koninck. Type *C. agassizianus* Koninck.

Koninck, L. G. de 1844 A, p. 617.
Amer. Geologist 1888 A, p. 133. (Lophodus.)
Davis, J. W. 1882 B, p. 50. (Agassizodus.)
Jaekel, O. 1894 A, p. 137.
Lohest, M. 1884 A, pp. 296, 305.
Miller, S. A. 1889 A, p. 587. (Agassizodus.)
Mudge, B. F. 1875 A. (Agassizodus.)
Newberry and Worthen 1870 A, p. 360. Lophodus, type *L. variabilis*; not Lophodus of Romanovsky.)
Pictet, F. J. 1854 A, p. 267.
St. John and Worthen 1875 A, pp. 297, 311, 316. (Agassizodus, to replace Lophodus.)
Woodward, A. S. 1889 D, p. 238.
Zittel, K. A. 1890 A, p. 75.

Campodus basalis (Cope).

Cope, E. D. 1894 F, p. 432, pl. xviii, figs. 6, 7. (Orodus, with Agassizodus as a section.)
Coal-measures; Illinois.

Campodus corrugatus (Newb. and Worth.).

Newberry and Worthen 1870 A, p. 358, pl. iii, figs. 18, 18a. (Orodus.)

Orodus turgidus St. J. and Worth.

St. John and Worthen 1875 A, p. 310, pl. vi, figs. 4, 5.
Woodward, A. S. 1889 D, p. 238.
Subcarboniferous (Chester); Illinois.

Orodus variabilis Newb.

Newberry, J. S. 1875 A, p. 50, pl. lviii, figs. 11-11A.
Lesley, J. P. 1889 A, p. 506, figure.
Newberry, J. S. 1873 A, p. 279. (No description; syn. ? of Ctenacanthus furcicaratus.)
Woodward, A. S. 1889 D, p. 238.
Subcarboniferous (Waverly); Ohio, Kentucky.

Orodus variocostatus St. J. and Worth.

St. John and Worthen 1875 A, p. 304, pl. viii, figs. 1-9.
Hambach, G. 1890 A, p. 81.
Woodward, A. S. 1889 D, p. 238.
Subcarboniferous (Burlington); Illinois, Iowa, Missouri (Ade Hambach).

Orodus whitei St. J. and Worth.

St. John and Worthen 1875 A, p. 297, pl. vi, fig. 25.
Woodward, A. S. 1889 D, p. 238.
Subcarboniferous (Kinderhook); Iowa.

Woodward, A. S. 1889 D, p. 240.
Subcarboniferous (Burlington); Illinois, Iowa.

Leiodus grossipunctatus St. J. and Worth.

St. John and Worthen 1875 A, p. 337.
Woodward, A. S. 1889 D, p. 240.
Subcarboniferous (Keokuk); Illinois, Iowa.

St. John and Worthen 1875 A, pp. 316, 323, pl. viii, fig. 24. (Agassizodus.)
Woodward, A. S. 1889 D, p. 239. (Campodus.)
Coal-measures; Illinois, Kansas.

Campodus scitulus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 322, pl. vi, figs. 16-18c. (Agassizodus.)
Cope, E. D. 1894 F, p. 433. (Orodus, section Agassizodus.)
Woodward, A. S. 1889 D, p. 239. (Campodus.)
Coal-measures; Illinois, Iowa.

Campodus variabilis (Newb. and Worth.).

Newberry and Worthen 1870 A, p. 361, pl. iv, figs. 4-4b; 5, 5a; 11-11b. (Lophodus.)
Lohest, M. 1884 A, p. 305. (Campodus.)
Miller, S. A. 1889 A, p. 587, fig. 1101. (Agassizodus.)
St. John and Worthen 1875 A, p. 318, pl. viii, figs. 1-22. (Agassizodus.)
Woodward, A. S. 1889 D, p. 239. (Campodus.)
Subcarboniferous; Belgium: Coal-measures; West Virginia, Iowa, Kansas.

Campodus virginianus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 321, pl. viii, figs. 23a-23d. (Agassizodus.)

Cope, E. D. 1894 F, p. 433. (Orodus, section Agassizodus.)

Lohest, M. 1884 A, p. 306. (Campodus agassizianus.)

Woodward, A. S. 1889 D, p. 238. (C. agassizianus.) Coal-measures; West Virginia.

MESODMODUS St. J. and Worth. Type *M. exsculptus* St. J. and Worth.

St. John and Worthen 1875 A, p. 290.

Miller, S. A. 1889 A, p. 602.

Woodward, A. S. 1889 D, p. 239.

Mesodmodus explanatus St. J. and Worth.

St. John and Worthen 1875 A, p. 298, pl. v, figs. 15-17.

Woodward, A. S. 1889 D, p. 239.

Subcarboniferous (Kinderhook); Iowa.

Mesodmodus exsculptus St. J. and Worth.

St. John and Worthen 1875 A, p. 291, pl. v, figs. 18-22.

Miller, S. A. 1889 A, p. 602, fig. 1148.

Woodward, A. S. 1889 D, p. 240.

Subcarboniferous (Kinderhook); Iowa.

Mesodmodus ornatus St. J. and Worth.

St. John and Worthen 1875 A, p. 294, pl. v, figs. 12-14.

Woodward, A. S. 1889 D, p. 240.

Subcarboniferous (Burlington); Illinois, Iowa.

DESMIODUS St. J. and Worth. Type *D. tumidus* St. J. and Worth.

St. John and Worthen 1875 A, p. 337.

Miller, S. A. 1889 A, p. 596.

Newberry, J. S. 1889 A, p. 186.

Woodward, A. S. 1889 D, p. 240.

Desmiodus costelliferus St. J. and Worth.

St. John and Worthen 1875 A, p. 341, pl. xA, figs. 10, 11.

Keyes, C. R. 1894 A, p. 230.

Miller, S. A. 1889 A, p. 596, fig. 1125.

Woodward, A. S. 1889 D, p. 240.

Subcarboniferous (St. Louis); Illinois, Missouri.

Desmiodus? flabellum St. J. and Worth.

St. John and Worthen 1875 A, p. 343, pl. xA, fig. 15.

Keyes, C. R. 1894 A, p. 230.

Woodward, A. S. 1889 D, p. 240.

Subcarboniferous (Keokuk); Missouri.

Desmiodus? ligoniformis St. J. and Worth.

St. John and Worthen 1875 A, p. 342, pl. xA, figs. 12-14.

Keyes, C. R. 1894 A, p. 230.

Woodward, A. S. 1889 D, p. 240.

Subcarboniferous (Keokuk); Missouri, Iowa.

Desmiodus minusculus (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 67, pl. iv, fig. 11. (Orodus.)

St. John and Worthen 1875 A, p. 339, 340. (Desmiodus.)

Woodward, A. S. 1889 D, p. 237. (Orodus.)

Subcarboniferous (Keokuk); Illinois.

Desmiodus tumidus St. J. and Worth.

St. John and Worthen 1875 A, pp. 299, 339, pl. xA, figs. 7-9.

Keyes, C. R. 1894 A, p. 230.

Woodward, A. S. 1889 D, p. 240.

Subcarboniferous (St. Louis); Illinois, Missouri.

PETRODUS McCoy, F. Type *P. patelliformis* McCoy.

McCoy, F. 1848 A, p. 132.

Davis, J. W. 1883 A, p. 400.

Jaekel, O. 1899 A, p. 278. (Syn.? of *Polyrhizodus*.)

Koninck, L. G. de 1878 A, p. 36.

Lohest, M. 1884 A.

McCoy, F. 1856 A, p. 637.

Miller, S. A. 1889 A, p. 606.

Newberry and Worthen 1866 A, p. 71.

1870 A, p. 346.

Pictet, F. J. 1854 A, p. 263.

Trautschold, H. 1874 B, p. 298. (*Ostinaspis*.)

Woodward, A. S. 1889 D, p. 245.

Zittel, K. A. 1890 A, p. 76.

It is probable that the bodies included in this genus are not teeth but dermal tubercles.

Petrodus acutus Newb. and Worth.

Newberry and Worthen 1866 A, p. 72, pl. iv, fig. 17.

Trautschold, H. 1874 B, p. 209, pl. xxviii, fig. 12.

(*Ostinaspis*.)

Woodward, A. S. 1889 D, p. 247.

Coal-measures; Illinois.

Petrodus occidentalis Newb. and Worth.

Newberry and Worthen 1866 A, p. 70, pl. iv, figs. 15-16a.

Jaekel, O. 1899 A, p. 283.

Keyes, C. R. 1888 A, p. 243.

Kindle, E. M. 1896 A, p. 485.

Lesley, J. P. 1899 A, p. 628, figures.

Newberry and Worthen 1870 A, p. 346.

Woodward, A. S. 1889 D, p. 246.

Coal-measures; Illinois, Indiana.

Petrodus ? pustulosus Newb. and Worth.

Newberry and Worthen 1870 A, p. 369, pl. ii, figs. 5, 5a; pl. iii, fig. 6.

Newberry, J. S. 1889 A, p. 178.

Woodward, A. S. 1889 D, p. 247.

Subcarboniferous (Burlington); Iowa.

STEMMATIAS Hay. Type *Stemmatodus cheiriformis* St. J. and Worth.

Hay, O. P. 1899 E, p. 784.

Davis, J. W. 1892 A, pp. 721, 726. (Syn. of *Pleuracanthus*.)

Jaekel, O. 1899 A, p. 278. (*Stemmatodus*, syn. of *Polyrhizodus*.)

Lesley, J. P. 1899 A, p. 1048.

St. John and Worthen 1875 A, p. 328. (*Stemmatodus*; preoccupied by Heckel.)

Ward, J. 1890 A, p. 153. (*Stemmatodus*.)

Wellburn, E. D. 1899, Proc. Yorksh. Geol. Polytech. Soc., xlii, p. 425. (*Stemmatodus*.)

Woodward, A. S. 1889 D, pp. 245, 247. (*Stemmatodus*.)

Stemmatias bicristatus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 331, pl. viii, figs. 32, 33, 35. (*Stemmatodus*.)

Hay, O. P. 1899 E, p. 784.

Lesley, J. P. 1899 A, p. 1048, figures. (*Stemmatodus*.)

Woodward, A. S. 1889 D, p. 247. (*Stemmatodus*.)

Subcarboniferous (Burlington); Iowa.

Stemmatias bifurcatus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 330, pl. viii, figs. 31a-31c. (*Stemmatodus*.)

Hay, O. P. 1899 E, p. 784.

Lesley, J. P. 1899 A, p. 1048, figures. (*Stemmatodus*.)

Woodward, A. S. 1889 D, p. 247. (*Stemmatodus*.)

Subcarboniferous (Burlington); Iowa.

Stemmatias cheiriformis (St. J. and Worth.).

St. John and Worthen 1875 A, p. 330, pl. viii, figs. 29, 30. (*Stemmatodus*.)

Hay, O. P. 1899 E, p. 784.

Lesley, J. P. 1899 A, p. 1048, figures. (*Stemmatodus*.)

Woodward, A. S. 1889 D, p. 247. (*Stemmatodus*.)

Subcarboniferous (Burlington); Iowa.

Stemmatias compactus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 334, pl. viii, figs. 38a-38c. (*Stemmatodus*.)

Hay O. P. 1899 E, p. 784.

Lesley, J. P. 1899 A, p. 1049, figures. (*Stemmatodus*.)

Woodward, A. S. 1889 D, p. 247. (*Stemmatodus*.)

Subcarboniferous (Chester); Illinois.

Stemmatias keokuk (St. J. and Worth.).

St. John and Worthen 1875 A, p. 334. (*Stemmatodus*.)

Hay, O. P. 1899 E, p. 784.

Woodward, A. S. 1889 D, p. 247. (*Stemmatodus*.)

Subcarboniferous (Keokuk); Iowa, Illinois.

Stemmatias simplex (St. J. and Worth.).

St. John and Worthen 1875 A, p. 332, pl. viii, figs. 34, 36, 37. (*Stemmatodus*.)

Hay, O. P. 1899 E, p. 784.

Lesley, J. P. 1899 A, p. 1049, figures. (*Stemmatodus*.)

Woodward, A. S. 1889, D, p. 247. (*Stemmatodus*.)

Subcarboniferous (Burlington); Iowa.

Stemmatias symmetricus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 333, pl. viii, fig. 28. (*Stemmatodus*.)

Hay, O. P. 1899 E, p. 784.

Lesley, J. P. 1899 A, p. 1049, figures. (*Stemmatodus*.)

Woodward, A. S. 1889 D, p. 247. (*Stemmatodus*.)

Subcarboniferous (Burlington); Iowa.

HETERODONTIDÆ.

Gill, T. 1862 A. (*Heterodontoidæ*.)

Agassiz, L. 1843 B (1838), iii, pp. 83, 159. ("Cestraciontes.")

Brown, C. 1900 A, p. 173. (*Cestraciontidæ*, *Hybodontidæ*.)

Davis, J. W. 1882 B. (*Hybodontidæ*.)

1888 A, pp. 331, 332. (*Hybodontidæ*.)

Fraas, E. 1896 A, pp. 17, 18. (*Hybodontidæ*, *Acrodontidæ*, *Cestraciontidæ*.)

Fritsch A. 1889 B, p. 97. (*Hybodontidæ*.)

Garman, S. 1885 B, p. 31. (*Hybodontidæ*.)

Gegenbaur, C. 1872 A. (*Cestraciontidæ*.)

Gill, T. 1872 C, p. 23. (*Heterodontidæ*.)

1884 B, p. 346. (*Hybodontidæ*, *Heterodontidæ*.)

Günther, A. 1880 A, p. 328. (*Hybodontidæ*, *Cestraciontidæ*.)

1881 A, p. 685. (*Hybodontidæ*, *Cestraciontidæ*.)

Hase, C. 1878 A. (*Hybodontidæ*, *Cestraciontidæ*.)

1879 A, p. 50 ("Acrodontiden"); p. 63 (*Hybodontidæ*.)

1882 A, p. 183. (*Cestraciontidæ*.)

Haswell, W. A. 1884 A. (*Cestraciontidæ*.)

Howes, G. B. 1887 A. (Cestracion.)
 Huxley, T. H. 1876 A. (Cestraciontidae.)
 Jaekel, O. 1890 D, p. 121, fig. 2. (Cestracion.)
 1894 A, p. 137. (Heterodontus.)
 Koninck, L. G. de 1878 A, p. 29. (Cestraciontidae.)
 Marsh, O. C. 1877 E. (Cestraciontidae.)
 Mayer, P. 1882 A, p. 277. (Cestraciontidae.)
 Mivart, St. G. 1879 A, p. 449, pl. lxxvi. (Cestracion.)
 Müller and Henle 1841 A, p. 76. (Cestraciontes.)
 Nicholson and Lydekker 1889 A, p. 940. (Hybodontidae, Cestraciontidae.)
 Owen, R. 1860 E, p. 106. (Cestraciontidae.)
 Pictet, F. J. 1854 A, p. 254 ("Hybodontes"); p. 260 ("Cestraciontes").

Quenstedt, F. A. 1885 A, p. 272 ("Hybodonten"); p. 278 ("Cestracionten").
 Reia, O. M. 1897 A, p. 69. ("Hybodonten").
 Stannius, H. 1854 A. (Cestraciones.)
 Steinmann and Döderlein 1890 A, pp. 545, 546. (Hybodontidae, Cestraciontidae.)
 Tomes, C. S. 1898 A, p. 244 ("Cestraciontes").
 Woodward, A. S. 1884 A, p. 267. (Hybodontidae.)
 1885 B, p. 106. (Cestraciontidae.)
 1889 D, p. 229. (Cestraciontidae.)
 1896 B, pp. 42, 44. (Cestraciontidae.)
 Zittel, K. A. 1890 A, p. 66 (Hybodontidae); p. 74 (Cestraciontidae).

HYBODUS Agassiz. Type *H. plicatilis* Agassiz.

Agassiz, L. 1843 B (1837), pp. 41, 178.
 1843 B, p. 201. (Sphenonchus, in part.)
 1844 A.
 Barkas, W. J. 1874 A, p. 386.
 1877 B, p. 145.
 Brown, C. 1900 A, p. 149, pla. xv, xvi.
 Day, E. C. H. 1864 A.
 Egerton, P. G. 1845 A, pl. iv.
 Fraas, E. 1896 A.
 Garman, S. 1885 B, p. 81.
 Glebel, C. G. 1848 A, p. 811.
 Jaekel, O. 1884 A, p. 294.
 1896 B, p. 135 (Hybodus); p. 188 (Orthyodus); p. 143 (Parahybodus).
 Mackie, S. J. 1863 A.
 Nicholson and Lydekker 1889 A, p. 940.
 Owen, R. 1845 B, p. 56, pl. xi.
 1860 E, p. 106.
 Pictet, F. J. 1854 A, p. 265.
 Quenstedt, F. A. 1852 A, p. 174.
 1885 A, p. 273.
 Steinmann and Döderlein 1890 A, p. 546.
 Williamson, W. C. 1849 A, p. 465, pl. 43, fig. 83.
 Woodward, A. S. 1884 A, p. 268.
 1886 A.
 1888 I, p. 261.

Woodward, A. S. 1888 J, p. 58.
 1889 D, p. 250.
 1889 E.
 1889 F.
 1896 B, p. 44.
 Woodward and Sherborn 1890 A, p. 90.
 Zittel, K. A. 1890 A, p. 67.

Hybodus clarkensis Cragin.

Cragin, F. W. 1894 A, p. 72, pl. ii, figs. 11-14.
 Cretaceous (Neocomian); Kansas.

Hybodus copei Hay.

Hay, O. P. 1899 E, p. 784.
 Cope, E. D. 1891 B, p. 448, pl. xxviii, fig. 2. (H regularis; preoccupied by Reuss, 1846.)
 Triassic? Texas.

Hybodus polyprion Agassiz.

Agassiz, L. 1843 B, iii, p. 185, pl. xxiii, figs. 1-15.
 Marsh, O. C. 1889 A, p. 230.
 Woodward, A. S. 1886 C, p. 257, pl. vi, figs. 1, 2.
 1889 D, p. 268.
 Stonesfield Slate, England: Jurassic; Black Hills, Wyoming.

ACRODUS Agassiz. Type *A. gaillardoti* Agassiz.

Agassiz, L., 1837, in H. B. Geinitz, Beiträge Kennt. Thüring. Muschelgeb., p. 21. (Fide A. S. Woodward.)
 1843 B (1838), iii, p. 139 (Acrodus); p. 201 (Sphenonchus, in part.)
 844 A.
 Day, E. C. H. 1864 A.
 Glebel, C. G. 1848 A, p. 325.
 Haase, C. 1882 A, p. 191, pla. xxiv, xxv.
 Jaekel, O. 1884 A, p. 811.
 1890 A, p. 93.
 1891 D, p. 191.
 1894 A, p. 132.
 1899 A, p. 296.
 Nicholson and Lydekker 1889 A, p. 942.
 Owen, R. 1845 B, p. 54, pla. xiv-xvi.
 1860 E, p. 109.
 Pictet, F. J. 1854 A, p. 261.
 Quenstedt, F. A. 1852 A, p. 178.
 1885 A, p. 278.
 Steinmann and Döderlein 1890 A, p. 546.

Traquair, R. H. 1888 A, p. 84.
 Woodward, A. S. 1885 B, p. 107.
 1889 D, p. 279.
 1889 E.
 1889 F.
 Woodward and Sherborn, 1890 A, p. 5.
 Zittel, K. A. 1890 A, p. 76.
Acrodus emmonsii Leidy.
 Leidy, J. 1872 M, p. 168.
 Emmons, E. 1858 B, p. 244, fig. 97. ("Acrodus.")
 Leidy, J. 1873 B, pp. 301, 352.
 Woodward, A. S. 1889 D, p. 298.
 Miocene? North Carolina?

Acrodus humilis Leidy.

Leidy, J. 1872 M, p. 168.
 1873 B, pp. 300, 352, pl. xxxvii, fig. 5.
 Woodward, A. S. 1889 D, p. 298.
 Cretaceous; New Jersey.

Superfamily **HEXANCHOIDÆ**,¹ *nom. nov.*

- Gill, T. 1882, Jordan & Gilbert's Synop. Fishes N. A., p. 967. (Oplisarthri.)
 1884 B, p. 346. (Oplisarthri.)
 1898 A, p. 129. (Oplisarthri.)
 Hasse, C. 1878 A. (Palaeonotidani.)
 1879 A, p. 35. (Diplospondyli.)
 Haswell, W. A. 1884 A, p. 112. (Palaeoselachii.)
 Jordan & Evermann 1896 A, p. 17. (Diplospondyli.)
 Koken, E. 1889 A, p. 90. (Oplisarthri.)
 Osborn, H. F. 1899 I, p. 158. (Notidani.)
 Woodward, A. S. 1889 D, p. ix. ("Oplisarthri.")

HEXANCHIDÆ.

- Gill, T., 1885, Report Smithsonian Inst. for 1884, p. 618.
 The following authors, unless otherwise indicated, refer to this group under the name *Notidanidæ*:
 Brown, C. 1900 A, pp. 169, 174.
 Duméril, A. 1865 A, p. 430. (Notidani.)
 Fritsch, A. 1895 A, p. 46.
 Gadow, H. 1889 A. (Heptanchus.)
 Gegenbaur, C. 1865 B.
 1872 A.
 1872 B.
 Gill, T. 1893 A, p. 129. (Hexanchidæ.)
 Günther, A. 1870 A, pp. 355, 397.
 1880 A, p. 324.
 1881 A, p. 685.
 Hasse, C. 1879 A, p. 35.
 1882 A, p. 37.
 Haswell, W. A. 1884 A, p. 112.
 Jaekel, O. 1894 A.
 Kölliker, A. 1863 A, p. 1. (Hexanchus.)
 Müller and Henle 1841 A, p. 80.
 Noetting, F. 1885 A, p. 16.
 Reis, O. M. 1897 A, pp. 69, 86.
 Sagemehl, M. 1883 A, p. 227.
 Semon, R. 1899 A, p. 76.
 Stannius, H. 1854 A. (Notidani.)
 Steinmann and Döderlein 1890 A, p. 547.
 White, P. J. 1895 A.
 Woodward, A. S. 1889 D, p. 157.
 Zittel, K. A. 1890 A, p. 65.

HEPTRANCHIAS Rafinesque. Type *Squalus cinereus* Gmelin.

- Rafinesque, C. S. 1810, Caratteri di alcuni nuovi generi, p. 13.
 Unless indicated otherwise, the following authors refer to this genus and *Hexanchus* under the name *Notidanus*.
 Agassiz, L. 1843 B, iii, pp. 216, 308.
 Brown, C. 1900 A.
 Cuvier, G. 1817, Règne Anim, Ed. 1, p. 128.
 Duméril, A. 1865 A, p. 432. (Heptanchus.)
 Gegenbaur, C. 1872 A, pl. i, figs. 1, 2; pl. iii, figs. 6, 7; pl. iv, figs. 1, 2; pl. vii, figs. 1, 2; pl. x; pl. xv, figs. 1, 2; pl. xvi, fig. 3; pl. xviii; pl. xx, figs. 2, 3, 5, 6, 8; pl. xxi, fig. 5. (Heptanchus and Hexanchus.)
 1872 B. (Hexanchus, Heptanchus.)
 Gibbs, R. W. 1849 A, p. 195.
 Günther, A. 1870 A, p. 397.
 1880 A, p. 325.
 Hasse, C. 1882 A, p. 39, pl. vi (Hexanchus); p. 44, pl. vi, vii (Heptanchus).
 Haswell, W. A. 1884 A, pp. 73, 88. (Heptanchus.)
 Hubrecht, A. A. W. 1878 A.
 Huxley, T. H. 1876 A.
 Kölliker, A. 1860 B. (Heptanchus.)
 Lawley, R. 1875 A.
 Mayer, P. 1886 A, p. 268. (Heptanchus.)
 Mivart, St. G. 1879 A, p. 443, pl. lxxv, fig. 2.
 Müller and Henle, 1841, p. 80 (Hexanchus); p. 81 (Heptanchus).
 Parker, T. J. 1890 A.
 Pedroni, P. M. 1844 A, p. 281.
 Pictet, F. J. 1854 A, p. 243.
 Probst, J. 1879 A, p. 156.
 Quenstedt, F. A. 1885 A, p. 262.
 Rafinesque, C. S., 1810, Caratteri di alcuni nuovi generi, p. 14. (Hexanchus.)
 Reis, O. M. 1897 A, p. 69.
 Stannius, H. 1854 A.
 Woodward, A. S. 1886 C.
 1889 D, p. 157.
 1892 G, figs. 9-12.
 1899 A, p. 6.
 Zittel, K. A. 1890 A, p. 66.
Heptanchias ? plectrodon (Cope).
 Cope, E. D. 1867 C, p. 141. (Notidanus.)
 Tertiary; Maryland.
Heptanchias ? primigenius (Agassiz).
 Agassiz, L. 1843 B, iii, p. 218, pl. xxvii, figs. 6-8, 13-17; doubtfully figs. 4, 5. (Notidanus.)
 The following authors refer this species to the genus *Notidanus*.
 Agassiz, L. 1843 B, p. 220, pl. xxvii, figs. 9-12. (N. recurvus.)
 Bassani, F. 1899 A, p. 25, pl. ii, figs. 13-15.
 Cope, E. D. 1867 C, p. 141.
 1875 H, p. 362.
 1875 V, p. 29.
 Dana, J. D. 1896 A, p. 901, fig. 1515.
 Davis, J. W. 1888 A, p. 33, pl. vi, fig. 6.
 Gibbs, R. W. 1849 A, p. 195, pl. xxv, fig. 95.
 Lawley, R. 1875 A, p. 20, pl. i, figs. 1-5.
 Leidy, J. 1877 A, p. 254.
 Noetting, F. 1885 A, p. 17, pl. i, figs. 4, 5.
 Pedroni, P. M. 1844 A, p. 281, pl. i, figs. 10, 11.

¹ This name is proposed simply for the purpose of conforming to the rule, adopted by many zoologists, of deriving the superfamily name from the name of a typical family by changing the termination *idæ* into *oidæ*.

Probst, J. 1858 A, p. 124, figs. 1-10.

1879 A, p. 158, pl. iii, figs. 1-5 (N. primigenius); p. 162, pl. iii, figs. 12-17 (N. recurvus); p. 166, pl. iii, figs. 6-11 (N. d'ancône).

Quenstedt, F. A. 1862 A, p. 167, pl. xiii, fig. 3.

1885 A, p. 263, pl. xx, fig. 6.

Woodward, A. S. 1886 C, pp. 216, 253, pl. vi, figs. 19-22.

1889 D, p. 163.

Wyman, J. 1850 B, p. 234.

Zittel K. A. 1890 A, p. 66, fig. 60.

Eocene and Miocene; Europe; Eocene; Virginia; Miocene; New Jersey, Maryland, North Carolina.

XIPHODOLAMIA Leidy. Type *X. ensis* Leidy.

Leidy, J. 1877 A, p. 252.

Woodward, A. S. 1889 D, p. 168. (Syn. ? of Notidanus.)

1899 A, p. 6. (Syn. ? of Notidanus.)

Xiphodolamia ensis Leidy.

Leidy, J. 1877 A, p. 252, pl. xxxiv, figs. 25-30.

Woodward, A. S. 1889 D, p. 168. (Notidanus?)

1899 A, p. 6.

"Marls" (Cretaceous?); New Jersey.

Superfamily GALEOIDEA,¹ nom. nov.

Gill, T. 1893 A, p. 129. (Astrospondyli, in part.)

Hasse, C. 1879 A, p. 48. (Astrospondyli.)

1882 A, pp. 186-284. (Astrospondyli.)

Haswell, W. A. 1884 A, p. 113. (Neoselachii, in part.)

Jaekel, O. 1890 A, p. 110. (Astrospondyli.)

1894 A, p. 53. (Actinospondyli, in part.)

Jordan and Evermann, 1896 A, p. 21. (Galei.)

Woodward, A. S. 1889 D, p. 157. (Astrospondyli, in part.)

LAMNIDÆ.

Davis, J. W. 1890 A, p. 365.

Duméril, A. 1865 A, p. 403. (Lamnæ.)

Gill, T. 1862 A, p. 397. (Lamnoidæ.)

Günther, A. 1870 A, pp. 354, 389.

1890 A, p. 319.

1891 A, p. 685.

Hasse, C. 1882 A, p. 214. ("Familie Lamna.")

Haswell, W. A. 1884 A, p. 114.

Jaekel, O. 1894 A, p. 157.

Jordan and Evermann 1896 A, p. 47.

Kiprijanoff, V. 1864 A, p. 373.

Kölliker, A. 1863 A. (Lamnoidei.)

Mayer, P. 1890 A, p. 277.

Müller and Henle 1838 A, p. 36. (Lamnoidea.)

1841 A, p. 66. (Lamnæ.)

Nicholson and Lydekker 1889 A, p. 944.

Probst, J. 1879 A, p. 127.

Stannius, H. 1864 A. (Lamnoidei.)

Steinmann and Döderlein 1890 A, p. 547.

Woodward, A. S. 1884 A, p. 228.

1899 D, p. 349.

Zittel, K. A. 1890 A, p. 81.

CARCHARIINÆ.

Duméril, A. 1865 A, p. 416. (Odontaspides.)

Gill, T. 1862 A, p. 398. (Odontaspidoideæ.)

1893 A, p. 130. (Carcharidæ.)

Jordan and Evermann 1896 A, p. 46. (Carcharidæ.)

Müller and Henle 1841 A, p. 73. (Odontaspides.)

CARCHARIAS Raf. Type *C. taurus* Raf.

Rafinesque, C. S., 1810, Caratteri di alcuni nuovi generi, p. 10.

Agassiz, L. 1843 B (1838), iii, pp. 87, 287, 306. (Odontaspis.)

Davis, J. W. 1890 A, p. 368. (Odontaspis.)

Duméril, A. 1865 A, p. 417. (Odontaspis.)

Günther, A. 1870 A, p. 354. (Odontaspis.)

1890 A, p. 321. (Odontaspis.)

Hasse, C. 1882 A, pp. 160, 230. (Odontaspis.)

Jordan and Evermann 1896 A, p. 46. (Carcharias.)

Kölliker, A. 1863 A, p. 14, figs. 6, 7. (Odontaspis.)

Müller and Henle 1837 A, p. 114. (Odontaspis.)

1837 B, p. 397.

1841 A, p. 73. (Odontaspis.)

Pictet, F. J. 1854 A, p. 251. (Odontaspis.)

Probst, J. 1859 A. (Odontaspis.)

Woodward, A. S. 1884 A, p. 228. (Odontaspis.)

1889 D, p. 360. (Odontaspis.)

1899 A, p. 7. (Odontaspis.)

Woodward and Sherborn 1890 A, p. 129. (Odontaspis.)

Zittel, K. A. 1890 A, p. 81. (Odontaspis.)

Carcharias contortidens (Agassiz).

Agassiz, L. 1843 B, iii, p. 294, pl. xxxvii, α, figs. 17-23. [Lamna (Odontaspis).]

Emmons, E. 1858 B, p. 239. [Lamna (Odontaspis).]

Gemmellaro, G. G. 1857 A, p. 320, pl. i, fig. 13: pl. vi α, figs. 18-20. [Lamna (Odontaspis).]

Gibbes, R. W. 1849 A, p. 197, pl. xxvi, fig. 119. [Lamna (Odontaspis).]

Giebel, C. G. 1848 A, p. 363. (Odontaspis.)

Jaekel, O. 1898 C, p. 163. (Odontaspis.)

Probst, J. 1859 A, p. 101. [Lamna (Odontaspis).]

1879 A, p. 144, pl. ii, figs. 33-39. [Lamna (Odontaspis).]

Sismonda, E. 1849 A, p. 48, pl. ii, figs. 25-28. [Lamna (Odontaspis).]

¹ See note under *Hexanchoides*, p. 300.

Tuomey, M. 1858 A, p. 268. (*Lamna*.)
Woodward, A. S. 1889 D, p. 366. (*Odontaspis*.)
Eocene and Miocene; Europe; Eocene; South
Carolina and Alabama: Miocene?; North Caro-
lina.

Carcharias duplex (Agassiz)

Agassiz, L. 1843 B, iii, p. 297, pl. xxxvii a, fig. 1.
[*Lamna* (*Odontaspis*).]
Tuomey, M. 1858 A, p. 268. (*Lamna*.)
Woodward, A. S. 1889 I, p. 375. (*Odontaspis*.)
Said by Tuomey to occur in Tertiary of Ala-
bama. The identification is doubtful.

Carcharias verticalis (Agassiz).

Agassiz, L. 1843 B, iii, p. 294, pl. xxxvii a, figs.
81, 32. (*Odontaspis*.)
Dames, W. 1883 B, p. 145, pl. iii, figs. 8-10. (*Odontaspis*.)
Gibbes, R. W. 1849 A, p. 198, pl. xxvi, figs. 124-
127. [*Lamna* (*Odontaspis*).]
Giebel, C. G. 1848 A, p. 363. (*Odontaspis*.)
Tuomey, M. 1858 A, p. 268. (*Lamna*.)
Woodward, A. S. 1889 D, p. 375. (*Odontaspis*.)
Eocene: Europe, Egypt, South Carolina, Ala-
bama.

LAMNINÆ.

Gill, T. 1862 A, p. 398.

Jordan and Evermann 1896 A, p. 47.

SPHENODUS Agassiz. Type *Sphenodus longidens* Agassiz.

Agassiz, L. 1843 B, iii, p. 288.
Davis, J. W. 1890 A, p. 349.
Quenstedt, F. A. 1852 A, p. 172.
1885 A, p. 270.
Woodward, A. S. 1889 D, p. 349. (*Orthacodus*, for
Sphenodus Agassiz, regarded as preoccupied by
Sphenodon Gray, 1831.)

Zittel, K. A. 1890 A, p. 81.

Sphenodus rectidens Emmons.

Emmons, E. 1858 B, p. 226, figs. 61, 62.
Cretaceous; North Carolina.

LAMNA Cuvier. Type *Squalus cornubicus* Gmelin.

Cuvier G. 1817, Règne Anim., ed. 1, v, ii, p. 126.
Agassiz, L. 1843 B, iii, pp. 287, 306.
Davis, J. W. 1888 A, p. 15.
1890 A, p. 371.
Duméril, A. 1865 A, p. 404.
Gibbes, R. W. 1849 A, p. 196.
Günther, A. 1870 A, p. 389.
Hasee, C. 1882 A, p. 215, pl. xxviii.
Jordan and Evermann 1896 A, p. 49.
Klunzinger, C. B. 1871 A, p. 669.
Kölliker, A. 1863 A, p. 8, fig. 3.
Müller and Henle 1837 A, p. 114.
1837 B, p. 397.
1841 A, p. 67.
Nicholson and Lydekker 1889 A, p. 944.
Pictet, F. J. 1854 A, p. 249.
Probst J. 1859 A.
Quenstedt, F. A. 1852 A, p. 170.
1885 A, p. 268.
Sismonda, E. 1849 A, p. 45.
Stephan, P. 1900 A, p. 327.
Tomes, C. S. 1898 A, p. 79.
Woodward, A. S. 1884 A, p. 228.
1889 D, p. 392.
Zittel, K. A. 1890 A, p. 82.

Lamna clavata Agassiz.

Agassiz, L. 1856 A, p. 275.
1857 A, p. 316, pl. i, figs. 19-21.
Woodward, A. S. 1889 D, p. 407.
Miocene; California.

Lamna crassidens Agassiz.

Agassiz, L. 1843 B, iii, p. 292, pl. xxxv, figs. 8-21.
Emmons, E. 1858 B, p. 240.

Gemmellaro, G. G. 1857 A, p. 318, pl. vi a, figs. 15,
16.
Gibbes, R. W. 1846 A, p. 42.
1849 A, p. 197, pl. xxvi, figs. 116-118.
Probst, J. 1879 A, p. 373, pl. ii, figs. 64-68.
Woodward, A. S. 1889 D, p. 373. (*Odontaspis*?)
Wyman, J. 1850 B, p. 233.
Eocene, Europe, North Carolina (Emmons),
South Carolina: Miocene?; Virginia (Wyman).

Lamna cuspidata Agassiz.

Agassiz, L. 1843 B, iii, p. 290, pl. xxxvii a, figs.
43-50.
1843 B, iii, p. 291, pl. xxxvii a, figs. 51-53
(*L. denticulata*); p. 293, pl. xxxvii a, figs. 27-30
[*L. (Odontaspis) hopei*]; p. 295, pl. xxxvii a,
figs. 24-26 [*L. (Odontaspis) dubia*].
Cope, E. D. 1867 C, p. 142. (*L. cuspidata, L. den-
ticulata*? *L. hopei*.)
1875 E, p. 297.
1875 H, p. 362. (*L. cuspidata, L. denticu-
lata*.)
1875 V, p. 29.
Gelnitz, H. B. 1888 A, p. 5, pl. i, figs. 1-3.
Gibbes, R. W. 1846 A, p. 42.
1849 A, p. 197, pl. xxv, figs. 108-106.
1850 F. (*L. cuspidata* and *L. denticulata*.)
Jaekel, O. 1898 C, p. 162.
Leidy, J. 1872 F.
1873 B, p. 304, pl. xviii, figs. 44, 45. (*L. cus-
pidata*?)
Lyell, C. 1845 A, p. 415.
1859 A, p. 101. [*Lamna* (*Odontaspis*).]
Noetting, F. 1885 A, p. 71, pl. v, figs. 1-3. (*Odontaspis hopei*.)

Probst, J. 1879 A, p. 149, pl. II, figs. 59-63. [*Lamna* (Odontaspia).]
 Quenstedt, F. A. 1852 A, p. 171, pl. XIII, fig. 17 (*Lamna cuspidata*); fig. 15 (*L. denticulata*).
 1855 A, p. 268, pl. XX, fig. 27.

Sauvage, H. E. 1882, p. 48, pl. I, figs. 15, 16.

Sismonda E. 1849 A, p. 47, pl. II, figs. 29-32 (*Lamna cuspidata*); p. 48, pl. II, figs. 17-22 (*Lamna dubia*).

Tuomey, M. 1858 A, p. 268.

Woodward, A. S. 1889 D, p. 368. (Odontaspia.)
 Eocene; Europe, Georgia, Alabama, Virginia, Kansas, South Carolina: Miocene; Maryland, North Carolina (Cope).

Lamna elegans Agassiz.

Agassiz, L. 1843 B, III, p. 289, pl. XXXV, figs. 1-5 (not figs. 6, 7); pl. XXXVIA, fig. 59 (not fig. 58).
 Bassani, F. 1899 A, p. 13, pl. I, figs. 1-17. (Odontaspia).

Clark, W. B. 1895 A, p. 4.

1897 A, p. 61.

Cope, E. D. 1867 C, p. 142.

1875 H, p. 362.

1875 V, p. 29.

Dana, J. D. 1896 A, p. 901, fig. 1514.

Davis, J. W. 1888 A, p. 15, pl. III, fig. 1. (*L. huttoni*.)

Dixon, F. 1850 A, p. 203, pl. X, figs. 28-31.

1878 A, p. 249, pl. X, figs. 29-31.

Emmons, E. 1856 B, p. 239, figs. 70-71a.

Geinitz, H. B. 1888 A, p. 5, pl. I, figs. 4-6.

Gibbes, R. W. 1846 A, p. 42.

1849 A, p. 196, pl. XXV, figs. 96-102.

Leidy, J. 1872 F.

1873 B, p. 305.

1877 A, p. 254.

Noëling, F. 1885 A, p. 61, pl. IV, figs. 1-9.

Owen, R. 1845 B, p. 32, pl. V, figs. 3, 4; pls. VI, VII.

Sismonda, E. 1849 A, p. 46, pl. II, figs. 33-35.

Tuomey, M. 1858 A, p. 261.

Woodward, A. S. 1884 A, p. 228.

1889 D, p. 361. (Odontaspia.)

1899 A, p. 8, pl. I, figs. 15-18. (Odontaspia.)

Wyman, J. 1850 B, p. 238.

Eocene and Miocene; Europe, New Zealand, Australia, and United States: Eocene; South Carolina, North Carolina, Alabama, and Virginia: Miocene; Maryland.

Lamna gracilis Agassiz.

Agassiz, L. 1843 B, III, p. 296, pl. XXXVII A, figs. 2-4. [*Lamna* (Odontaspia).]

Eichwald, E. 1868 A, p. 1222, pl. XXXVIII, fig. 10.
 Gibbes, R. W. 1849 A, p. 198, pl. XXVI, figs. 128-130. [*Lamna* (Odontaspia).]

Giebel, C. G. 1847 A, p. 362.

Pictet and Campiche 1858 A, p. 88, pl. XI, figs. 9-18. (Odontaspia.)

Sauvage, H. E. 1879 A, p. 59, pl. III, figs. 1-12. (Odontaspia.)

Woodward, A. S. 1889 D, p. 369. (*Scapanorhynchus*?).

Cretaceous; Europe: Eocene, South Carolina.

Lamna macrorrhiza Cope.

Cope, E. D. 1875 E, p. 297, pl. XLII, figs. 9, 10.

Williston, S. W. 1900 A, p. 38.

1900 B, p. 249.

Woodward, A. S. 1889 D, p. 399.

Cretaceous (Niobrara); Kansas: Cretaceous of Europe.

Lamna manitobensis Whiteaves.

Whiteaves, J. F. 1889 B, p. 192, pl. XXVI, figs. 6a, 6c. Cretaceous (Niobrara); Manitoba.

Lamna mudgei Cope.

Cope, E. D. 1875 E, p. 297, pl. XLII, figs. 11, 12.

Williston, S. W. 1900 A, p. 38.

1900 B, p. 248.

Woodward, A. S. 1889 D, p. 408.

Cretaceous (Niobrara); Kansas: ("Green-sand"); New Jersey.

Lamna ornata Agassiz.

Agassiz, L. 1856 A, p. 275.

1857 A, p. 316, pl. I, fig. 28.

Woodward, A. S. 1889 D, p. 408.

Miocene; California.

Lamna ? quinquelateralis Cragin.

Cragin, F. W. 1894 A, p. 72, pl. II, figs. 9, 10.

Williston, S. W. 1900 A, p. 39.

1900 B, p. 250.

Cretaceous (Comanche); Kansas.

Lamna rhapsiodon Agassiz.

Agassiz, L. 1843 B, III, p. 296, pl. XXXVII A, figs. 12-16, not fig. 11. [*Lamna* (Odontaspia).]

Tuomey, M. 1858 A, p. 268.

Reported from the Tertiary of Alabama by Tuomey, but the identification is doubtful. For synonymy and literature see Woodward, A. S. 1889 D, p. 353. See also under *Lamna texana*.

Lamna subulata Agassiz.

Agassiz, L. 1843 B, III, p. 296, pl. XXXVII A, figs. 5-7.

Cope, E. D. 1867 C, p. 142.

Geinitz, H. B. 1875 A, p. 209, pl. XXXVIII, figs. 29-36.

Hébert, E. 1855 C, p. 355, pl. XXVII, fig. 10.

Professor Cope has reported this species with doubt from the Miocene of Charles County, Md. For synonymy and literature of the species see Woodward, A. S. 1889 D, p. 356, under name of *Scapanorhynchus ? subulatus*.

Lamna texana Roemer.

Roemer, F. 1849 A, p. 419.

Cope, E. D. 1875 E, p. 296.

1875 F, p. 63.

1875 K, p. 38.

Credner, H. 1870 A, p. 242.

Dana, J. D. 1896 A, p. 843, fig. 1402.

Leidy, J. 1873 B, p. 305, pl. XVIII, figs. 46-49. (*L. elegans*?).

Newberry, J. S. 1876 A, p. 141.

Roemer, F. 1852 A, p. 29, pl. I, figs. 7a, 7b.

Williston, S. W. 1900 A, p. 40, pl. VIII, fig. 4; pl. XIV, fig. 5. (*Scapanorhynchus rhapsiodon*.)

Williston, S. W. 1900 B, p. 251, pl. xxvi, fig. 4; pl. xxxii, fig. 5. (*Scapanorhynchus raphiodon*.)
 Woodward, A. S. 1889 D, p. 358.
 Cretaceous; Texas, Kansas, Alabama, Mississippi, New Jersey, Kansas.

Lamna sp. indet.

Williston, S. W. 1900 A, p. 38, pl. xii, figs. 5, 6.
 1900 B, p. 249, pl. xxx, figs. 5, 6.
 Cretaceous (Kiowa shales); Kansas.

LEPTOSTYRAX Willist. Type *L. bicuspidatus* Willist.

Williston, S. W. 1900 A, p. 42.

Leptostyrax bicuspidatus Willist.

Williston, S. W. 1900 A, p. 42.
 1900 B, p. 258, pl. xxiv, figs. 15, 15a; pl. xxvi, fig. 7.
 Cretaceous (Mentor beds); Kansas.

OTODUS Agassiz. Type *O. obliquus* Agassiz.

Agassiz, L. 1843 B, III, pp. 266, 307.
 1844 A.

Davis, J. W. 1888 A, p. 14.

1890 A, pp. 367, 401.

Gibbes, R. W. 1849 A, p. 198.

Hasse, C. 1882 A, p. 206, pl. xxvii.

Kiprijanoff, V. 1854 A, p. 377.

Nicholson and Lydekker 1889 A, p. 944.

Pictet, F. J. 1854 A, p. 245.

Pictet and Campiche 1858 A, p. 81.

Probst, J. 1879 A, p. 154.

Sismonda, E. 1849 A, p. 38.

Woodward, A. S. 1884 A, p. 229.

1889 D, p. 392. (Syn. of *Lamna*.)

1899 A, p. 10.

Zittel, K. A. 1890 A, p. 83.

Otodus ? apiculatus Agassiz.

Agassiz, L. 1843 B, III, p. 275, pl. xxxii, figs. 32-35.
 Eastman, C. R. 1895 A, p. 178. (Syn. of *Oxyrhina hastalis*.)

Gibbes, R. W. 1846 A, p. 42.

1849 A, p. 200, pl. xxvi, fig. 147.

Woodward, A. S. 1889 D, p. 387.

Eocene; South Carolina.

Otodus appendiculatus Agassiz.

Agassiz, L. 1843 B (1835), III, p. 270, pl. xxxii, figs. 1-25.

Cope, E. D. 1867 C, p. 142.

1875 E, p. 295.

1875 H, p. 362.

Credner, H. 1870 A, p. 242.

Dana, J. D. 1896 A, p. 843, figs. 1401, 1404.

Davis, J. W. 1890 A, p. 402, pl. xli, figs. 1-11.

Dixon, F. 1850 A, pl. xxx, fig. 25; pl. xxxi, fig. 17.

Emmons, E. 1858 B, p. 240.

Gelnitz, H. B. 1875 A, p. 208.

1839 A, p. 11, pl. i, fig. 3 (*Squalus cornubicus*); p. 12, pl. i, fig. 5 (*Odontaspis raphiodon*).

Gibbes, R. W. 1846 A, p. 42.

1849 A, p. 199, pl. xxvi, figs. 138-140.

1850 F.

Glebel, C. G. 1848 A, p. 42.

Hébert, E. 1855 C, p. 355.

Pictet, F. J. 1854 A, p. 247.

Pictet and Campiche 1858 A, p. 82, pl. x, figs. 3, 4.

Priem, F. 1897 A, p. 40, pl. i, figs. 1-8. (*Lamna*.)

Quenstedt, F. A. 1852 A, p. 170, pl. xiii, fig. 8.

1885 A, p. 268, pl. xx, figs. 23, 24.

Reuss, A. E. 1846 A, p. 5, pl. iii, figs. 22-29.

Roemer, F. 1849 A, p. 419.

1852 A, p. 30, pl. i, figs. 9a, 9b.

Sauvage, H. E. 1870 A, p. 26, figs. 57-59 (*O. appendiculatus*); p. 34, figs. 73-75 (*Lamna acuminata*).

1879 A, p. 60, pl. iii, fig. 21 (*O. appendiculatus*);

p. 61, pl. iii, figs. 15-20 (*Lamna acuminata*).

Spillman, W. in Hilgard, E. W. 1860 A, p. 389.

Williston, S. W. 1900 A, p. xiv, figs. 3-3c. (*Lamna*.)

1900 B, p. 247, pl. xxvi, figs. 3-3c; pl. xxxi,

figs. 47-49. (*Lamna*.)

1884 A, p. 229, fig. 131.

Woodward, A. S. 1889 D, p. 393. (*Lamna*.)

Wyman, J. 1850 B, p. 234.

Cretaceous; Europe, Australia, New Jersey, North Carolina, Mississippi; Tertiary; Virginia, Texas, North Carolina.

Otodus crassus Agassiz.

Agassiz, L. 1843 B, III, p. 271, pl. xxxvi, figs. 29-31.

Gibbes, R. W. 1849 A, p. 200, pl. xxvi, fig. 142.

Kiprijanoff, V. 1854 A, p. 384, pl. ii, figs. 4-20.

Woodward, A. S. 1889 D, p. 400. (*Lamna*.)

Cretaceous; Europe, Alabama.

Otodus divaricatus Leidy.

Leidy, J. 1872 M, p. 162.

Cope, E. D. 1874 C, p. 48.

1875 E, p. 295.

1873 B, pp. 305, 351, pl. xviii, figs. 26-28.

Williston, S. W. 1900 A, p. 37, pl. vi, figs. 1-1b.

(*Lamna sulcata*.)

1900 B, p. 248, pl. xxiv, figs. 1-1b. (*L. sulcata*.)

Woodward, A. S. 1889 D, p. 398. (Syn. of *Lamna sulcata*.)

Cretaceous; Texas, Kansas.

Otodus levis Gibbes.

Gibbes, R. W. 1847 A, p. 268.

1849 A, p. 199, pl. xxvi, fig. 141.

Woodward, A. S. 1889 D, p. 408. (*Lamna*.)

Eocene; South Carolina, New Jersey.

Otodus macrotus Agassiz.

- Agassiz, L.* 1843 B, iii, p. 273, pl. xxxii, figs. 29-31.
 1843 B, iii, pl. xxxv, figs. 6, 7; pl. xxxvii a,
 fig. 58 (*Lamna elegans*, in part); p. 290, pl.
 xxxvii a, figs. 35-42 (*Lamna compressa*).
Dixon, F. 1850 A, p. 204, pl. xi, figs. 20, 21. (*O.*
lanceolatus, not of Agassiz.)
 1878 A, p. 249, pl. xi, figs. 20, 21. (*O. lan-*
ceolatus.)
Emmons, E. 1858 B, p. 240.
Gibbes, R. W. 1846 A, p. 42.
 1849 A, p. 200, pl. xxvi, figs. 143, 144; p. 197,
 pl. xxv, figs. 107-112. (*Lamna compressa*.)
 1850 F. (*Lamna compressa*.)
Winckler, T. C. 1874 B, p. 296.
Woodward, A. S. 1889 D, p. 402. (*Lamna*.)
 1899 A, p. 9, pl. i, figs. 19, 20.
Wyman, J. 1850 B, p. 233.
 Eocene; Europe, New Zealand, South Caro-
 lina, Virginia.

Otodus obliquus Agassiz.

- Agassiz, L.* 1843 B, iii, p. 267, pl. xxxi; pl. xxxvi,
 figs. 22-27.
 1843 B, iii, p. 269, pl. xxxvii, figs. 19-23. (*O.*
lanceolatus.)
Bassani, F. 1899 A, p. 18, pl. i, figs. 32-35. (*Lamna*.)
Clark, W. B. 1895 A, p. 4. (*Lamna?* obliqua.)
 1897 A, p. 61. (*Lamna?* obliqua.)
Cope, E. D. 1867 C, p. 142.

- Dames, W.* 1883 B, p. 145, pl. iii, fig. 6.
Davis, J. W. 1890 A, p. 407, pl. xii, fig. 13.
Dixon, F. 1850 A, p. 204, pl. x, figs. 32-35; pl. xv,
 fig. 11.
 1878 A, p. 249, pl. x, figs. 32-35; pl. xv, fig. 11.
Gibbes, R. W. 1846 A, p. 42.
 1849 A, p. 199, pl. xxvi, figs. 131-137.
 1850 F.
Geinitz, H. B. 1883 A, p. 6, pl. i, figs. 12-18.
Morton, S. G. 1834 A, pl. xi, fig. 1 (*Lamna obliqua*);
 fig. 5 (*Lamna lanceolata*, *ide* Agassiz).
 1835 A, p. 277. (*Lamna lanceolata*.)
 1842 A, p. 220. (*Lamna lanceolata*.)
Noetling, F. 1885 A, p. 84, pl. vi, figs. 4-6. (*Car-*
charodon.)
Woodward, A. S. 1884 A, p. 229. (*Otodus*.)
 1889 D, p. 404. (*Lamna?* obliqua.)
 1899 A, p. 10.
Wyman, J. 1850 B, p. 234. (*O. obliquus* and *O.*
lanceolatus.)
 Upper Cretaceous and Eocene; Europe and
 Egypt; Eocene; Virginia, New Jersey; Miocene;
 Virginia, North Carolina (*ide* Cope).

Otodus trigonatus Agassiz.

- Agassiz, L.* 1843 B, iii, p. 274, pl. xxxvi, figs. 35-37.
Gibbes, R. W. 1849 A, p. 200, pl. xxvi, figs. 145, 146.
Woodward, A. S. 1889 D, p. 401. (*Lamna*.)
 1899 A, p. 10, pl. i, figs. 23, 24.
 Upper Eocene; Bavaria, South Carolina (?).

Isurus Rafinesque. Type *I. oxyrhynchus* Raf. = *Oxyrhina spallanzanii* Bonap.

Rafinesque, C. S. 1810, Caratteri di alcuni nuovi generi, p. 11.

Unless otherwise stated, this genus is referred to by the following writers under the name *Oxyrhina*. This name is antedated by that of Rafinesque, *Isurus*.

Agassiz, L. 1843 B (1838), iii, pp. 86, 276, 307 (*Oxyrhina*, type *O. spallanzanii*).
 1844 A.

- Davis, J. W.* 1890 A, pp. 367, 371.
Duméril, A. 1865 A, p. 407.
Eastman, C. R. 1895 A.
Gibbes, R. W. 1849 A, p. 201.
Hasse, C. 1882 A, p. 230, pl. xxxi.
Jordan and Evermann, 1896 A, p. 47. (*Isurus*.)
Kölliker, A. 1863 A, p. 11, figs. 4, 5.
Leidy, J. 1873 B, p. 303.
Müller and Henle, 1837 A, p. 114.
 1837 B, p. 397.
 1841 A, p. 681.
Nicholson and Lydekker, 1889 A, p. 944.
Pictet, F. J. 1854 A, p. 247.
Pictet and Campiche, 1858 A, p. 83.
Probst, J. 1879 A, p. 128.
Quenstedt, F. A. 1852 A, p. 172.
 1885 A, p. 270.
Steinmann and Döderlein, 1890 A, p. 547.
Woodward, A. S. 1884 A, p. 229.
 1889 D, p. 376.
Zittel, K. A. 1890 A, p. 81.

Isurus crassus (Agassiz).

Agassiz, L. 1843 B, iii, p. 283, pl. xxxvii, fig. 16 (not pl. xxxiv, fig. 14). (*Oxyrhina*.)

- Eastman, C. R.* 1895 A, p. 182. (*Oxyrhina*.)
Gemmellaro, G. G. 1857 A, p. 317, pl. i, fig. 11. (*Oxyrhina*.)
Gibbes, R. W. 1849 A, p. 202, pl. xxvii, figs. 159, 160. (*Oxyrhina*.)
Woodward, A. S. 1889 D, p. 389. (*Oxyrhina*.)
 1894 B. (*Oxyrhina*.)
 Eocene; South Carolina, Alabama.

Isurus desorii (Agassiz).

- Agassiz, L.* 1843 B, iii, p. 282, pl. xxxvii, figs. 8-13. (*Oxyrhina*.)
 1843 B, iii, p. 282, pl. xxxvii, figs. 3-5. (*Oxyrhina leptodon*.)
Bassani, F. 1899 A, p. 13, pl. ii, figs. 24-38. (*Oxyrhina*.)
Cope, E. D. 1867 C, p. 142. (*Oxyrhina*.)
 1875 V, p. 29. (*Oxyrhina*.)
Eastman, C. R. 1895 A, p. 180. (*Oxyrhina*.)
Emmons, E. 1858 B, p. 236, fig. 67. (*Oxyrhina*.)
Gemmellaro, G. G. 1857 A, p. 314, pl. vi a, figs. 9-11 (*O. leptodon*); pl. vi a, figs. 12, 13 (*O. desorii*); p. 319, pl. vi a, fig. 17 (*Lamna lyelli*).
Gibbes, R. W. 1847 A, p. 267. (*Oxyrhina*.)
 1849 A, p. 203, pl. xxvii, figs. 169-171 (*O. desorii*); p. 203, pl. xxvii, figs. 172, 173 (*O. wilsoni*).
 1850 F. (*Oxyrhina*.)
Noetling, F. 1885 A, p. 50, pl. iii. (*O. xiphodon*.)
Probst, J. 1879 A, p. 131, pl. ii, figs. 7-13 (*O. desorii*); p. 141, pl. ii, figs. 69, 75 (*Alopias gigas*).
Siamonda, E. 1849 A, p. 40, pl. ii, figs. 7-16. (*Oxyrhina*.)

Woodward, A. S. 1889 D, p. 382. (Oxyrhina.)
Tertiary; Europe and United States: Eocene; Alabama, North Carolina, South Carolina: Miocene; Maryland (*Id.* Cope).
For additional references to descriptions of foreign specimens see Woodward, A. S. 1889 D, pp. 382, 383.

***Isurus hastalis* (Agassiz).**

Agassiz, L. 1843 B, iii, p. 277, pl. xxxiv, excl. figs. 1, 2, 14. (Oxyrhina.)
1843 B, iii, p. 278, pl. xxxiii, figs. 11-17 (O. xiphodon); p. 279, pl. xxxvii, figs. 17, 18 (O. trigonodon); p. 279, pl. xxxvii, figs. 14, 15 (O. plicatilis); p. 281, pl. xxxiii, fig. 10 (O. retroflexa); p. 281, pl. xxxvii, figs. 1, 2 (O. quadrans).
Alessandri, G. de 1896 A, p. 263, pl. i. (Oxyrhina.)
Clarke, W. B. 1895 A, p. 4. (Oxyrhina.)
1897 A, p. 61. (Oxyrhina.)
Cope, E. D. 1867 C, p. 142. (O. hastalis, O. xiphodon.)
1875 H, p. 362. (O. xiphodon.)
Eastman, C. R. 1895 A, p. 178. (Oxyrhina.)
Emmons, E. 1858 B, p. 236, figs. 64-66. (O. xiphodon, O. hastalis.)
Gemmellaro, G. G. 1857 A, p. 312, pl. vi, fig. 5 (O. hastalis); p. 313, pl. vi a, figs. 6-8 (O. xiphodon).
Gibbes, R. W. 1846 A, p. 43 (O. xiphodon, O. hastalis); p. 42 (O. retroflexa).
1849 A, pp. 197, 201, pl. xxvi, figs. 148-152 (O. hastalis); p. 201, pl. xxvii, figs. 153, 154 (O. xiphodon); p. 202, pl. xxxvii, figs. 155-157 (O. plicatilis).
1850 F, p. 70.
Giebel, C. G. 1848 A, p. 357. (Oxyrhina.)
Hitchcock, E., 1835, Geol. Mass., pl. xiii, fig. 37. (No name or description.)
Ledy, J. 1877 A, p. 254. (O. xiphodon.)
Lyell, Chas. 1843 C, p. 32. (Oxyrhina.)
1845 A, p. 415. (Lamna xiphodon.)
Probst, J. 1879 A, p. 129, pl. ii, figs. 1-6 (O. hastalis); p. 132, pl. ii, figs. 14-19 (O. xiphodon).
Quenstedt, F. A. 1885 A, p. 270, fig. 84. (Oxyrhina.)
Sauvage, H. E. 1875 A, p. 633. (O. xiphodon.)
Sismonda, E. 1849 A, p. 40, pl. i, figs. 41-47 (O. hastalis); p. 42, pl. i, figs. 48-50 (O. plicatilis); figs. 51, 52 (O. xiphodon); p. 43, pl. ii, figs. 1-6 (O. isocelica).
Tuomey, M. 1858 A, p. 268. (O. hastata, O. xiphodon.)
Woodward, A. S. 1889 D, p. 385. (Oxyrhina.)
1900 A, p. 4, pl. i, figs. 6-8. (Oxyrhina.)
Wyman, J. 1850 B, p. 234. (O. hastalis, O. xiphodon.)
Tertiary; Europe, Australia, New Zealand, and United States: Eocene; Alabama, South Carolina: Miocene; Virginia, Maryland, South Carolina, North Carolina: Pliocene?; Argentine Republic.
For additional references to foreign specimens see Woodward, A. S. 1889 D, pp. 385, 386, and Eastman, C. R. 1895 A, p. 178.

***Isurus mantellii* (Agassiz).**

Agassiz, L. 1843 B, iii, p. 280, pl. xxxiii, figs. 1-5, 7-9. (Oxyrhina.)
1843 B, iii, p. 292, pl. xxxvii a, fig. 54. (Lamna acuminata.)
Cope, E. D. 1875 E, p. 296. (Oxyrhina extensa.)
Credner, H. 1870 A, p. 242. (Oxyrhina.)
Dana, J. D. 1896 A, p. 843, fig. 1405. (Oxyrhina.)
Davis, J. W. 1890 A, p. 391, pl. xxxix, figs. 1-7. (Oxyrhina.)
Dixon, F. 1850 A, pl. xxx, fig. 24 (O. mantellii); pl. xxx, fig. 19 (Lamna acuminata).
Eastman, C. R. 1895 A, pls. xvi-xviii. (Oxyrhina.)
Fritsch, A. 1878 A, p. 7, fig. 12. (Oxyrhina.)
Gelnitz, H. B. 1875 A, p. 207, pl. xxxviii, figs. 1-21. Gibbes, R. W. 1842 A, p. 43. (Oxyrhina.)
1849 A, p. 197, pl. xxv, figs. 113-115 (Lamna acuminata); p. 202, pl. xxvii, fig. 156 (Oxyrhina).
Giebel, C. G. 1848 A, p. 357. (Oxyrhina.)
Hilgard, E. W. 1860 A, p. 389. (Oxyrhina.)
Ledy, J. 1872 M, p. 162. (Oxyrhina extensa.)
1873 B, pp. 302, 351, pl. xviii, figs. 21-25. (Oxyrhina extensa.)
Morton, S. G. 1834 A, pl. xi, fig. 4. (Lamna mantellii, *Id.* Agassiz.)
1835 A, p. 277. (L. mantellii, L. acuminata.)
1842 A, p. 219. (Lamna mantellii and L. acuminata.)
Newberry, J. S. 1876 A, p. 141. (Oxyrhina.)
Quenstedt, F. A. 1852 A, p. 172, pl. xiii, fig. 14. (Oxyrhina.)
1885 A, p. 270, pl. xx, fig. 37. (Oxyrhina.)
Reuss, A. E. 1846 A, p. 5, pl. iii, figs. 1-6. (Oxyrhina.)
Roemer, F. 1849 H, p. 419. (Oxyrhina.)
1852 A, p. 29, pl. i, figs. 6 a, b. (Oxyrhina.)
Sauvage, H. E. 1870 A, p. 21, figs. 39-41 (Oxyrhina); p. 24, figs. 54-56 (Otodus oxyrhinoides).
Williston, S. W. 1900 A, p. 36, pl. xiii, figs. 41-46; pl. xiv, figs. 2-2m. (Oxyrhina.)
1900 B, p. 246, pl. xxxi, figs. 41-46; pl. xxxii, figs. 2-2m.
Woodward, A. S. 1884 A, p. 229, fig. 136. (Oxyrhina.)
1889 D, p. 376. (Oxyrhina.)
Cretaceous; Europe, Alabama, New Jersey, Virginia, Mississippi, Kansas, Texas.

***Isurus minutus* (Agassiz).**

Agassiz, L. 1843 B, iii, p. 285, pl. xxxvi, figs. 39-47. (Oxyrhina.)
Cope, E. D. 1867 C, p. 142. (Oxyrhina.)
1875 H, p. 362. (Oxyrhina.)
1875 V, p. 29. (Oxyrhina.)
Eastman, C. R. 1895 A, p. 182. (Oxyrhina.)
Gemmellaro, G. G. 1857 A, p. 316, pl. via fig. 14. (Oxyrhina.)
Gibbes, R. W. 1849 A, p. 202, pl. xxvii, figs. 161-163; not fig. 164. (Oxyrhina.)
Sismonda, E. 1849 A, p. 44, pl. ii, figs. 36-39.
Woodward, A. S. 1889 D, p. 391. (Oxyrhina.)
Eocene; South Carolina, Maryland, New Jersey, North Carolina: Miocene; North Carolina (*Id.* Cope).
It is not improbable that the identification of the American specimens assigned to this species is wrong. See *Carcharhinus gibbesii*.

Isurus planus (Agassiz).

- Agassiz, L. 1856 A, p. 274. (Oxyrhina.)
 1857 A, p. 315, pl. i, figs. 29, 30. (Oxyrhina.)
 Eastman, C. R. 1895 A, p. 183. (Oxyrhina.)
 Woodward, A. S. 1889 D, p. 391. (Oxyrhina.)
 Miocene; California.

Isurus sillimanii (Gibbes).

- Gibbes, R. W. 1847 A, p. 268. (Oxyrhina.)
 Cope, E. D. 1867 C, p. 142. (Oxyrhina.)
 1875 V, p. 29. (Oxyrhina.)
 Eastman, C. R. 1895 A, p. 181. (Oxyrhina.)
 Gibbes, R. W. 1849 A, p. 202, pl. xxvii, figs. 165-168.
 (Oxyrhina.)
 1850 F. (Oxyrhina.)

- Woodward, A. S. 1889 D, p. 391. (Oxyrhina.)
 Eocene; South Carolina; Miocene; Maryland, North Carolina (*vide* Cope).

Isurus tumulus (Agassiz).

- Agassiz, L. 1856 A, p. 275. (Oxyrhina.)
 1857 A, p. 316, pl. i, figs. 26, 27, 36, 37, 42-44.
 (Oxyrhina.)
 Eastman, C. R. 1895 A, p. 183. (Oxyrhina.)
 Woodward, A. S. 1889 D, p. 391. (Oxyrhina.)
 Miocene; California.

Isurus sp. indet.

- Cope, E. D. 1875 E, p. 296.
 1875 F, p. 96.

CARCHARODONTINÆ.

Gill, T. 1893 A, p. 130.

Jordan and Evermann, 1896 A, p. 47.

CARCHARODON A. Smith. Type *Squalus carcharias* Linn.

Smith, A. in Müller and Henle 1838 A, p. 37.

Agassiz L., 1843 B. iii, pp. 245, 307.

1844 A.

Davis, J. W. 1888 A, p. 8.

Duméril, A. 1865 A, p. 410.

Gibbes, R. W. 1848 B, p. 142.

1849 A, p. 191.

Günther, A. 1870 A, p. 391.

1880 A, p. 320.

Hasse, C. 1882 A, p. 224.

Haswell, W. A. 1884 A, p. 83.

Müller & Henle 1841 A, p. 70.

Kölliker, A. 1863 A, p. 15, figs. 8, 9.

Nicholson & Lydekker 1889 A, p. 945.

Parker, T. J. 1887 A.

Pedroni, P. M. 1844 A, p. 285.

Pictet, F. J. 1854 A, p. 287.

Probst, A. 1879 A, p. 137.

Sismonda, E. 1849 A, p. 33.

Steinmann & Döderlein 1890 A, p. 548.

Woodward, A. S. 1884 A, p. 229.

1890 D, p. 410.

Zittel, K. A. 1890 A, p. 84.

Carcharodon auriculatus (Blainville).

Blainville, H. M. D., 1818, *Nouv. Dict. d'Hist. Nat.*,
 xxvii, p. 384. (Squalus.)

Agassiz, L. 1843 B, iii, p. 254, pl. xxviii, figs. 17-19
 (C. auriculatus); p. 255, pl. xxviii, figs. 20-25
 (C. angustidens); pl. xxx, fig. 3 (C. lanceolatus,
 C. angustidens in text); p. 256, pl. xxxa, figs. 8, 9
 (C. turgidus); p. 257, pl. xxx, fig. 1 (C. lanceola-
 tus); p. 257, pl. xxxa, fig. 14 (C. tollapicus); p.
 258 pl. xxviii, figs. 11-16 (C. heterodon); p. 258,
 pl. xxviii, figs. 8-10 (C. megalotis); p. 259, pl.
 xxviii, fig. 7 (C. disaurs).

Bassani, F., 1899 A, p. 22 pl. i, figs. 30-39.

Cope, E. D. 1867 C, p. 142. (C. angustidens.)

1875 E, p. 296. (C. angustidens.)

1875 H, p. 362. (C. angustidens.)

1875 V, p. 29. (C. angustidens.)

Dana, J. D., 1896 A, p. 901, fig. 1513. (C. angusti-
 dens.)

Davis, J. W. 1880 A, p. 9, pl. i, figs. 4-6; pl. iv, fig.
 22. (C. angustidens.)

Dixon, F. 1850 A, p. 204, pl. xi, fig. 19. (C. hetero-
 don.)

1858 A, p. 249, pl. xi, fig. 19. (C. heterodon.)

Emmons, E. 1858 B, p. 231, fig. 57; p. 233. (C. cras-
 sidens, Emmons, *non* Sismonda.)

Gemmellaro, G. G. 1857 A, p. 304, pl. v, figs. 6a-8.
 (C. angustidens and var. turgidus.)

Gibbes, R. W. 1846 A, p. 42. (C. auriculatus, angus-
 tidens, heterodon, megalotis, lanceolatus, semi-
 serratus, turgidus.)

1847 A, p. 267. (C. acutidens.)

1848 B, pp. 145, 146, pls. xix-xxi, figs. 10-38.

(C. angustidens, with varieties auricula-
 tus, heterodon, megalotis, lanceolatus,
 semiserratus, tollapicus, and turgidus.)

1848 B, p. 146, pl. xxi, figs. 39-44. (C. acuti-
 dens.)

1850 F. (C. acutidens, angustidens.)

Giebel, C. G. 1848 A, p. 350 (C. angustidens, C. auri-
 culatus); p. 351 (C. heterodon, lanceolatus,
 tollapicus, turgidus).

Hilgard, E. W. 1860 A, pp. 132, 142. (C. angusti-
 dens.)

Leidy, J. 1876 A, p. 222. (C. angustidens.)

1876 E. (C. angustidens.)

1877 A, p. 253. (C. angustidens.)

Morton, S. G. 1834 A, pl. xii, figs. 3, 4, 5. (Carcharias
 lanceolatus and C. megalotis, *vide* Agassiz.)

1835 A, p. 277. (C. megalotis.)

1842 A, p. 220. (Carcharias myalotis.)

Noetting, F. 1885 A, p. 82, pl. vi, figs. 1-3. (C. an-
 gustidens.)

Pedroni, P. M. 1844 A, p. 285.

Röse, C. 1897 A, p. 35, figs. 5, 6. (C. angustidens.)

Tuomey, M. 1858 A, p. 268. (Carcharias angusti-
 dens, auriculatus, heterodon.)

Wallis, B. L. C. 1854 A, p. 277. (C. angustidens.)

Woodward, A. S. 1884 A, p. 229, fig. 141. (C. auri-
 culatus.)

1889 D, p. 411. (C. auriculatus.)

Wyman, J. 1850 B, p. 234. (C. angustidens.)

Tertiary; Europe, North Africa, Arabia, Victo-
 ria, New Zealand, North America; Eocene;
 Alabama, Mississippi, North Carolina, South
 Carolina; Miocene; Maryland, Virginia.

Carcharodon carcharias (Linn.).

Linnaeus, 1758, *Syst. Nat.*, ed. x, p. 285. (*Squalus carcharias*.)

Agassiz, L. 1843 B, Pl. p. 254, pl. xxxa, figs. 5-7. (C. sulcidens.)

Davis, J. W. 1890 A, p. 410, pl. xli, fig. 14. (C. rondeletii.)

Duméril, A. 1865 A, p. 411, pl. vii, fig. 7.

Emmons, E. 1858 B, p. 230, figs. 55, 56. (C. sulcidens.)

Gibbes, R. W. 1846 A, p. 42. (C. sulcidens.)

1848 A, p. 350. (C. sulcidens.)

1848 B, p. 147, pl. xxi, figs. 52, 53. (C. sulcidens.)

Giebel, C. G. 1848 A, p. 350. (C. sulcidens.)

Günther, A. 1880 A, p. 320, fig. 114. (C. rondeletii.)

Hasse, C. 1882 A, p. 228, pl. xxxi. (C. rondeletii.)

Jordan and Evermann 1896 A, p. 50. (C. carcharias.)

Kölliker, A. 1863 A, p. 15. (C. rondeletii.)

Müller and Henle, 1841 A, p. 70. (C. rondeletii.)

Stevenson, W. B. 1884 A, with 1 plate and 1 woodcut.

Woodward, A. S. 1884 A, p. 230. (C. sulcidens.)

1889 D, p. 420. (C. rondeletii.)

Recent in all temperate and tropical seas: Pliocene; Europe; Miocene and Eocene; South Carolina, North Carolina.

Carcharodon contortidens Emmons.

Emmons, E. 1858 B, p. 233, fig. 60.

Doubtful species.

Eocene; North Carolina.

Carcharodon lanciformis Gibbes.

Gibbes, R. W. 1847 A, p. 267.

1848 B, p. 146, pl. xxi, figs. 46-51.

1850 F.

Leidy, J. 1877 A, p. 254.

Woodward, A. S. 1889 D, p. 411.

Phosphate beds; South Carolina.

Carcharodon leptodon Agassiz.

Agassiz, L. 1843 B, Pl. p. 259, pl. xxviii, figs. 1-6.

†Gibbes, R. W. 1846 A, p. 42.

†1850 G, p. 300, pl. xlii, figs. 7-9.

Woodward, A. S. 1889 D, p. 421.

Eocene; South Carolina.

The identification of the South Carolina specimens with Agassiz's *C. leptodon* is doubtful.

Carcharodon megalodon Agassiz.

Agassiz, L., in Charlesworth, E. 1837 A, with woodcut.

1843 B, Pl. p. 247, pl. xxix (C. megalodon); p. 250, pl. xxxa, fig. 10 (C. rectidens); 251, pl. xxxa, figs. 11-13 (C. subauriculatus); p. 251, pl. xxx, figs. 2, 4, 6, 7, 8 (C. productus); p. 253, pl. xxx, figs. 9-12 (C. polygyrus).

Bowerbank, J. S. 1852 A. (Carcharias megalodon.) 1852 B.

Clark, W. B. 1896 A, p. 4. (C. polygyrus.)

1897 A, p. 61. (C. polygyrus.)

Cope, E. D. 1867 C, p. 142.

1875 H, p. 362.

1875 V, p. 29.

Davis, J. W. 1888 A, p. 12, pl. ii, figs. 1-3.

DeKay, J. E. 1842 B, p. 386. (Carcharias polygyrus)

Emmons, E. 1858 B, p. 227, figs. 50, 51; p. 229, figs. 52-54 (C. ferox); p. 232, fig. 59 (C. triangularis).

Gemmellaro, G. G. 1857 A, p. 299, pl. ii, figs. 3a-3c; pl. iii, figs. 1a, 2a, 3a; pl. iv, figs. 1a-3a (C. megalodon); p. 307, pl. iv, fig. 4 (C. latissimus); p. 306 pl. v, figs. 3-5 (C. productus).

Gibbes, R. W. 1846 A, p. 41 (C. megalodon, rectidens); p. 42 (C. polygyrus, productus, mortoni).

1847 A, p. 266. (C. mortoni.)

1848 B, p. 143, pls. xviii, xix, figs. 1-9 (C. megalodon); p. 146, pl. xxi, fig. 45 (C. mortoni).

1850 F.

Giebel, C. G. 1848 A, p. 348 (C. megalodon); p. 349 (C. productus, rectidens); p. 350 (C. auriculatus, polygyrus).

Hilgard, E. W. 1860 A, p. 142.

Leidy, J. 1876 A, p. 222.

1876 E.

1876 F.

1877 A, p. 253.

Lucas, F. A. 1892 A, p. 151.

Lyell, C. 1843 C, p. 32. (Carcharias.)

1845 A, p. 415. (C. megalodon, productus).

Morton, S. G. 1834 A, pl. xli, fig. 2. (Carcharias polygyrus, *fdc* Agassiz.)

1835 A, p. 277. (Carcharias polygyrus.)

1842 A, p. 220. (Carcharias polygyrus.)

Pedroni, P. M. 1844 A, p. 286, pl. i, figs. 24, 25.

Pictet, F. J. 1854 A, p. 238.

Probst, J. 1879 A, p. 138.

Quenstedt, F. A. 1852 A, p. 169. (Carcharias verus.)

1885 A, p. 206, fig. 82. (Carcharias verus.)

Sismonda, E. 1849 A, p. 34, pl. i, figs. 8-13 (C. megalodon); p. 35, pl. i, figs. 32, 33 (C. crassidens); p. 37, pl. i, figs. 25-29 (C. productus).

Tuomey, M. 1868 A, p. 268. (Carcharias polygyrus, productus.)

Walles, B. L. C. 1854 A, p. 276.

Woodward, A. S. 1884 A, p. 229.

1889 D, p. 415 (C. megalodon); p. 422 (C. mortoni).

1900 A, p. 4, pl. i, fig. 9.

Zittel, K. A. 1890 A, p. 84, fig. 87.

Tertiary; Europe, Arabia, East Indies, West Indies, North and South America, Central America, Australia, New Zealand; Eocene and phosphate beds; South Carolina, Alabama, Mississippi, Maryland, Massachusetts, North Carolina, Virginia; Pliocene; Argentine Republic.

Carcharodon rectus Agassiz.
Agassiz, L. 1856 A, p. 274.
1857 A, p. 315, pl. i, figs. 39-41.
Bowers, S. 1889 A.
Woodward, A. S. 1889 D, p. 422.
Miocene; California.

CORAX Agassiz. Type *Galeus pristodontus* Agassiz.

- Agassiz*, L. 1843 B, iii, p. 224.
 Davis, J. W. 1890 A, pp. 367, 411.
 Kiprijanoff, V. 1853 A, p. 230.
 Pictet, F. J. 1854 A, p. 240.
 Pictet and Campiche 1858 A, p. 79.
 Priem, F. 1897 A, p. 47.
 Reuss, A. E. 1846 A, p. 3.
 Williston, S. W. 1900 A, p. 41.
 1900 B, p. 252.
 Woodward, A. S. 1884 A, p. 227.
 1889 D, p. 422.
 Zittel, K. A. 1890 A, p. 84.
- Corax affinis** Agassiz.
Agassiz, L. 1843 B, iii, p. 227, pl. xxvi, fig. 2 (C. affinis); pl. xxvii, figs. 21-24. (C. appendiculatus.)
 1843 B, iii, p. 229, pl. xxvii, figs. 51, 57. (C. planus.)
 Giebel, C. G. 1848 A, p. 349. (Carcharodon minor.)
 Hébert, E. 1855 C, p. 354, pl. xxvii, fig. 9. (Sphyrna plana.)
 Woodward, A. S. 1889 D, pp. 427, 428.
 Upper Cretaceous; Europe. A specimen in the Ennskillen collection from the Eocene of Alabama may belong to this species.

Corax curvatus Willist.

- Williston*, S. W. 1900 A, p. 41, pl. xii, figs. 7, 8.
 1900 B, p. 253, pl. xxx, figs. 7, 8.
 (Cretaceous (Benton); Kansas.

Corax falcatus Agassiz.

- Agassiz*, L. 1843 B, iii, p. 226, pl. xxvi, fig. 14; pl. xxvii, figs. 1-15. (On pl. xxvi as *Galeus pristodontus*.)
 Cope, E. D. 1875 E, p. 295. (Galeocerdo.)
 Credner, H. 1870 A, p. 242. (Heterodon.)
 Dana, J. D. 1896 A, p. 843, fig. 1403. (C. heterodon.)
 Dixon, F. 1860 A, pl. xxx, fig. 18.
 Fritsch, A. 1878 A, p. 11, figs. 23, 24. (C. heterodon.)
 Geinitz, H. B. 1839 A, p. 11, pl. i, fig. 1 (Galeus pristodontus); p. 11, pl. i, fig. 2. (G. appendiculatus.)
 1875 A, p. 210, pl. xi, figs. 2-15. (C. heterodon.)
 Giebel, C. G. 1848 A, p. 370. (C. heterodon.)
 Hébert, E. 1855 C, p. 354, pl. xxvii, fig. 9. (Sphyrna plana.)
 Kiprijanoff, V. 1853 A, p. 293, pl. ii, figs. 1a-1c. (C. heterodon.)
 1864 A, p. 293, pl. ii. (C. heterodon.)

- Leidy, J. 1873 B, pp. 301, 351, pl. xviii, figs. 29-43.
 Pictet and Campiche 1858 A, p. 80, pl. x, figs. 1, 2.
 Osborn, Scott and Speir 1878 A, p. 105. (Galeocerdo.)
 Reuss, A. E. 1846 A, p. 3, pl. iii, figs. 49-71 (C. heterodon); p. 4, pl. iv, fig. 1-3 (C. obliquus).
 Roemer, F. 1849 A, p. 419. (C. heterodon.)
 1852 A, p. 30, pl. i, fig. 8. (C. heterodon.)
 Sauvage, H. E. 1870 A, p. 40, pl. ii, figs. 84, 85.
 Tuomey, M. 1858 A, p. 261.
 Williston, S. W., 1900 A, p. 41, pl. xiii, figs. 1-40, pl. xiv, figs. 1-11.
 1900 B, p. 252, pl. xxxi, figs. 1-40; pl. xxxii, figs. 1-11.
 Woodward, A. S. 1884 A, p. 227, fig. 134.
 1889 D, p. 424.
 Cretaceous; Europe, Alabama, Mississippi, Texas, Kansas, Colorado, New Jersey.

Corax pristodontus Agassiz.

- Agassiz*, L. 1843 B, iii, p. 224, pl. xxvi, figs. 9-13. (On plate as *Galeus pristodontus*.)
 In Morton, S. G. 1835 A, p. 277. (Galeus pristodontus; no description.)
 1843 B, iii, p. 225, pl. xxvi, figs. 4-8; pl. xxvi a, figs. 25-34. (C. kaupii.)
 Cope, E. D. 1867 C, p. 141. (Galeocerdo appendiculatus; reference uncertain as to species.)
 1875 E, p. 295. (Galeocerdo.)
 1877 K, pp. 11, 38. (Galeocerdo.)
 De Kay, J. E. 1842 B, p. 387. (Galeus.)
 Emmons, E. 1858 B, p. 238, fig. 69. (Galeocerdo.)
 Gibbs, R. W. 1846 A, p. 42.
 1849 A, p. 192, pl. xxv, fig. 70. (Galeocerdo.)
 1850 F. (Galeocerdo.)
 Giebel, C. G. 1848 A, p. 370.
 Harlan, R. 1835 B, p. 292. (Squalus.)
 Hébert, E. 1855 C, p. 353, pl. xxvii, fig. 8.
 Morton, S. G. 1834 A, pl. xi, fig. 6. (No description.)
 1842 A, p. 219. (Galeus.)
 Pictet, F. J. 1854 A, p. 240.
 Priem, F. 1897 A, p. 45, pl. i, figs. 18, 19.
 1896 A, p. 236, pl. ii, fig. 5.
 Spillman, W., in Hilgard, E. W. 1860 A, p. 389. (C. appendiculatus.)
 Tuomey, M. 1858 A, p. 261. (Galeus.)
 Woodward, A. S. 1884 A, p. 227, fig. 132.
 1888 I, p. 293.
 1889 D, p. 423.
 Zittel, K. A. 1890 A, p. 84, fig. 88.
 Upper Cretaceous; Europe, India, Africa, New Jersey; Eocene; Alabama, Mississippi, South Carolina; Miocene; Virginia.

XENODOLAMIA Leidy. Type *X. pravus* Leidy.

- Leidy*, J. 1877 A, p. 251.
 Woodward, A. S. 1889 D, p. 429.
- Xenodolamia pravus** Leidy.
Leidy, J. 1877 A, p. 251, pl. xxxiv, figs. 33, 34.
 Woodward, A. S. 1889 D, p. 429.
 Phosphate beds; South Carolina.

Xenodolamia simplex Leidy.

- Leidy*, J. 1877 A, p. 251, pl. xxxiv, figs. 35, 36.
 Woodward, A. S. 1889 D, p. 429.
 Phosphate beds; South Carolina.

SCYLLIORHINIDÆ.

- Gill, T. 1862 A, p. 406. (Scylliorhinoidea.)
 Duméril, A. 1865 A, p. 312. (Scyllia.)
 Gegenbaur, C. 1865 B. (Scylliidae.)
 Günther, A. 1870 A, p. 400. (Scylliidae.)
 1880 A, p. 325. (Scylliidae.)
 Hasse, C. 1878 A. (Scyllia.)
 1879 A, p. 52. (Scyllia.)
 1882 A, p. 242. (Scyllia.)
 Haswell, W. A. 1884 A, p. 115. (Scylliidae.)
 Jaekel, O. 1890 A, p. 94. (Scylliidae.)
 1894 A, p. 159. (Scylliidae.)

- Jordan and Evermann 1896 A, p. 22 (Scylliorhinoidea); p. 25 (Ginglymostomidae).
 Kölliker, A. 1863 A, p. 27. (Scyllium.)
 Mayer, P. 1886 A, p. 274. (Scylliidae.)
 Müller and Henle 1841 A, p. 3. (Scyllia.)
 Probst, J. 1879 A, p. 169. (Scylliidae.)
 Woodward, A. S. 1889 D, p. 338.
 Zittel, K. A. 1890 A (1887), p. 79. (Scylliidae.)

SCYLLIORHININÆ.

Gill, T. 1862 A, p. 407.

SCYLLIORHINUS Blainville. Type *S. canicula* Cuvier.

- Blainville, H. M. D., 1816, Jour. de Physique, p. 263.
 Cuvier, 1817, Règne Anim., II, p. 124. (Scyllium.)
 Günther, A. 1870 A, p. 400. (Scyllium.)
 Jordan and Evermann 1896 A, p. 22.
 Woodward, A. S. 1889 D, p. 340. (Scyllium.)

Scylliorhinus ? gracilis Willist.

- Williston, S. W. 1900 A, p. 35, pl. vi, fig. 6. [Scyllium (Lamna?).]
 1900 B, p. 245, pl. xxiv, fig. 6. [(Scyl. Lamna)].
 Cretaceous (Greenleaf sandstone); Kansas.

Scylliorhinus planidens Willist.

- Williston, S. W. 1900 A, p. 35, pl. vi, fig. 7. (Scyllium.)
 1900 B, p. 245, pl. xxiv, fig. 7.
 Cretaceous (Greenleaf sandstone); Kansas.

Scylliorhinus rugosus Willist.

- Williston, S. W. 1900 A, p. 35, pl. vi, fig. 5. (Scyllium.)
 1900 B, p. 245, pl. xxiv, fig. 5.
 Cretaceous (Greenleaf sandstone); Kansas.

GINGLYMOSTOMINÆ.

- Gill, T. 1890 A, p. 130. (Ginglymostominae.)
 1862 A, p. 406. (Ginglymostomoidae.)
 Günther, A. 1870 A, p. 407. (Scylliidae, in part.)
 Hasse, C. 1879 A, p. 51. (Scylliolamnidae, in part.)
 1882 A, p. 193. (Scylliolamnidae, in part.)

- Jordan and Evermann, 1896 A, p. 25. (Ginglymostomoidae.)

GINGLYMOSTOMA Müller and Henle. Type *Squalus cirratus* Gmelin.

- Müller and Henle, 1837 B, p. 396.
 Duméril, A. 1865 A, p. 333.
 Günther, A. 1870 A, p. 407.
 1880 A, p. 326.
 Hasse, C. 1879 A, p. 71.
 1882 A, pp. 201, 203, pl. xxv.
 Klunzinger, C. B. 1871 A, p. 670.
 Kölliker, A. 1863 A, p. 5, fig. 1.
 Leidy J. 1877 A, p. 250. (Acrodobatis, type A. serra.)
 Müller and Henle, 1838 A, p. 35.
 1841 A, p. 22.
 Woodward, A. S. 1889 D, p. 348.
 Zittel, K. A. 1890 A, p. 80.

Ginglymostoma obliquum (Leidy).

- Leidy, J. 1877 A, p. 250, pl. xxxiv, fig. 14. (Acrodobatis.)
 Woodward, A. S. 1889 D, p. 348. (G. serra?)
 Eocene; New Jersey.

Ginglymostoma serra (Leidy).

- Leidy, J. 1877 A, p. 250, pl. xxxiv, figs. 10-13. (Acrodobatis.)
 Woodward, A. S. 1889 D, p. 348.
 Eocene; South Carolina.

GALEIDÆ.

- Duméril, A. 1865 A, p. 388. (Galei.)
 Gegenbaur, C. 1865 B. (Carchariidae.)
 Gill, T. 1862 A, p. 399. (Galeorhinoidea.)
 Günther, A. 1870 A, p. 363. (Carchariidae.)
 1880 A, p. 316. (Carchariidae.)
 1881 A, p. 685. (Carchariidae.)
 Hasse, C. 1882 A, p. 256 ("Fam. Hemigaleus"); p. 268 (Carchariidae.)
 Jaekel, O. 1894 A, p. 156. (Carchariidae.)

- Jordan and Evermann 1896 A, p. 27. (Galeidae.)
 Mayer, P. 1886 A, p. 275. (Carchariidae.)
 Müller and Henle 1841 A, p. 7 (Carchariae); p. 57 (Galei).
 Steinmann and Döderlein 1890 A, p. 546. (Carchariidae.)
 Woodward, A. S. 1884 A, p. 227 (Carchariidae); 1889 D, p. 435 (Carchariidae).
 Zittel, K. A. 1890 A, p. 85. (Carchariidae.)

GALEORHININÆ.

Gill, T. 1862 A, pp. 399, 401.

Günther, A. 1870 A, p. 358. (Carcharina, in part.)

Jordan and Evermann 1896 A, p. 27.

GALEOCERDO Müller and Henle. Type *G. tigrinus* M. and H.

Müller and Henle 1838 A, p. 36.

Agassiz, L. 1843 B, iii, pp. 230, 304.

Davis, J. W. 1888 A, p. 7.

Duméril, A. 1865 A, p. 393.

Gibbes, R. W. 1849 A, p. 191.

Gill, T. 1862 A, p. 400.

Günther, A. 1870 A, p. 377.

1890 A, p. 317.

Hasse, C. 1882 A, p. 259, pls. xxxvi, xxxvii.

Jaekel, O. 1894 A, p. 164.

Jordan and Evermann 1896 A, p. 32.

Klunzinger, C. B. 1871 A, p. 663.

Müller and Henle 1837 A, p. 114.

1841 A, p. 59.

Pedroni, P. M. 1844 A, p. 282.

Pictet, F. J. 1854 A, p. 241.

Steinmann and Döderlein 1890 A, p. 548.

Woodward, A. S. 1884 A, p. 227.

1889 D, p. 443.

Zittel, K. A. 1890 A, p. 85.

Galeocerdo aduncus Agassiz.

Agassiz, L. 1843 B, iii, p. 231, pl. xxvi, figs. 24-28.

Cope, E. D. 1867 C, p. 141.

1875 H, p. 362.

1875 V, p. 29.

1877 K, p. 38.

Emmons, E. 1858 B, p. 237.

Gibbes, R. W. 1849 A, p. 191, pl. xxv, figs. 54-58.

1850 F.

Glebel, C. G. 1848 A, p. 369.

Ledy, J. 1877 A, p. 254.

Pedroni, P. M. 1844 A, p. 283, pl. i, figs. 12, 13.

Pictet, F. J. 1854 A, pp. 241, 242.

Quenstedt, F. A. 1852 A, p. 168, pl. xlii, fig. 2 (Galeus).

1885 A, p. 264, pl. xx, fig. 8 (Galeus).

Tuomey, M. 1858 A, p. 268 (Galeus).

Woodward, A. S. 1889 D, p. 444.

1900 A, p. 5, pl. i, figs. 10, 10a.

Zittel, K. A. 1890 A, p. 85, fig. 90.

Tertiary; Europe: Eocene; North Carolina, South Carolina, Alabama: Miocene; Maryland.

Galeocerdo contortus Gibbes.

Gibbes, R. W. 1849 A, p. 193, pl. xxv, fig. 71-74.

Clark, W. B. 1895 A, p. 4.

1897 A, p. 62.

Cope, E. D. 1867 C, p. 141.

1875 V, p. 29.

Emmons, E. 1858 B, additions and corrections to p. 241, figs. 82a, 83a.

Gibbes, R. W. 1850 F.

Jaekel, O. 1898 C, p. 165 (var. *hassie*).

Ledy, J. 1877 A, p. 254.

Pictet, F. J. 1854 A, p. 242.

Woodward, A. S. 1889 D, p. 443.

Wyman, J. 1850 B, p. 234.

Eocene; North Carolina, South Carolina, Alabama: Miocene; Virginia and Maryland. Variety *hassie* in Germany.

Galeocerdo crassidens Cope.

Cope, E. D. 1872 I, p. 356.

1875 E, pp. 243, 396.

Williston, S. W. 1900 A, p. 41. (Syn. ? of *Corax falcatus*.)

Woodward, A. S. 1889 D, p. 447.

Cretaceous (Niobrara); Kansas.

Galeocerdo hartwellii Cope.

Cope, E. D. 1872 I, p. 355.

1875 E, pp. 244, 296. (G. *hartwelli*.)

Osborn, Scott and Speir, 1878 A, p. 105.

Williston, S. W. 1900 A, p. 41. (Syn. ? of *Corax falcatus*.)

1900 B, p. 252, pl. xxxi, fig. 23. (*Corax hartwelli*; syn. of *C. falcatus*.)

Woodward, A. S. 1889 D, p. 447.

Cretaceous (Niobrara); Kansas, Colorado.

Galeocerdo lævissimus Cope.

Cope, E. D. 1867 C, p. 141.

Miocene; Maryland.

Galeocerdo latidens Agassiz.

Agassiz, L. 1843 B, iii, p. 231, pl. xxvi, figs. 22, 23; (? figs. 20, 21.)

Cope, E. D. 1867 C, p. 141.

1875 V, p. 29.

Dames, W., 1883 B, p. 142.

Dixon, F. 1850 A, p. 202, pl. xi, figs. 22, 23.

1878 A, p. 248, pl. xi, figs. 22, 23.

? Emmons, E. 1858 B, p. 239, fig. 68.

Gibbes, R. W. 1846 A, p. 42.

1849 A, p. 192, pl. xxv, figs. 59-62.

1850 F.

Glebel, C. G. 1848 A, p. 369.

Hilgard, E. W. 1860 A, p. 142.

Tuomey, M. 1858 A, p. 268. (Galeus.)

Woodward, A. S. 1889 D, p. 444.

Tertiary; Europe and North Africa: Eocene; North Carolina, South Carolina, Alabama, and Mississippi: Miocene; Maryland.

Galeocerdo minor Agassiz.

Agassiz, L. 1843 B, iii, p. 232, pl. xxvi, figs. 15-19 (? figs. 20, 21); pl. xxvii, figs. 64-66.

Glebel, C. G. 1848 A, p. 369.

Molin, R. 1860, Sitzungsber. Akad. Wiss. Berlin, xi, p. 583. (Protogaleus.)

Winckler, 1874 B, p. 296, pl. vii, fig. 1. (G. *recticonus*.)

Woodward, A. S. 1889 D, p. 446. (*Galeocerdo* ? *minor*.)

Tertiary; Europe: Eocene; Alabama. (Woodward.)

Galeocerdo productus Agassiz.

Agassiz, L. 1856 A, p. 273.

1857 A, p. 314, pl. i, figs. 1-6.

Woodward, A. S. 1889 D, p. 448.

Miocene; California.

Galeocerdo subcrenatus Emmons.

Emmons, E. 1858 B, p. 238.

A doubtful species, without indicated formation; North Carolina.

Galeocerdo sp. indet.

Woodward, A. S. 1889 D, p. 456.

Eocene; South Carolina.

GALEORHINUS Blainville.Type *Squalus galeus* Linn.Blainville, H. M. D. 1816, Bull. Sci. Philom., p. 121.
Cuvier G. 1817 Règne Anim., ed. i, p. 117. (Galeus, with *Squalus galeus* as type.)

Gegenbaur, C. 1872 A, pl. ii, fig. 2; pl. v, fig. 2; pl. viii, fig. 3; pl. xii, fig. 2; pl. xvii, fig. 2; pl. xix, fig. 4. (Galeus.)

Gill, T. 1862 A, p. 402.

1864, Proc. Acad. Nat. Sci. Phila., p. 148. (Eugaleus, type *Squalus galeus*.)

Günther, A. 1870 A, p. 379. (Galeus.)

1890 A, p. 318. (Galeus.)

Hasse, C. 1882 A, p. 263, pl. xxxviii. (Galeus.)

Jaekel, O. 1894 A, p. 166. (Galeus.)

Jordan and Evermann, 1896 A, p. 31. (Galeorhinus.)

Müller and Henle, 1841 A, p. 57. (Galeus.)

Woodward, A. S. 1889 D, p. 452. (Galeus.)

Zittel, K. A. 1890 A, p. 85. (Galeus.)

Galeorhinus sp. indet.

Woodward A. S. 1889 D, p. 456. (Galeus.)

Eocene; Alabama.

CARCHARHININÆ.

Duméril, A. 1865 A, p. 340. (Carcharias.)

Günther, A. 1870 A, p. 353. (Carcharina, in part.)

Jordan and Evermann, 1896 A, p. 28.

CARCHARHINUS Blainville. Type *C. commersoni* = *C. lamia* (Raf.).Blainville, H. M. D. 1816, Jour. de Physique, p. 284.
Agassiz, L. 1843 B, iii, pp. 240, 302, 366. (Carcharias.)Cuvier, G. 1817 Règne Anim., ed. i, p. 125. (Carcharias, type *C. lamia*.)

Duméril, A. 1865 A, p. 343. (Carcharias.)

Gill, T. 1862 A, p. 401. (Eulamia, type *C. lamia*.)

Günther, A. 1880 A, p. 318. (Carcharias.)

Hasse, C. 1882 A, p. 268, pl. xxxix. (Carcharias.)

Jaekel, O. 1894 A, p. 157. (Carcharias.)

Jordan and Evermann 1896 A, p. 33. (Carcharhinus.)

Klunzinger, C. B. 1871 A, p. 655. (Carcharias.)

Müller and Henle 1837 A, p. 114. (Carcharias.)

1841 A, p. 27. (Carcharias.)

Quenstedt, F. A. 1852 A, p. 169. (Carcharias.)

1885 A, pp. 265, 272. (Carcharias.)

Steinmann and Döderlein 1890 A, p. 548. (Carcharias.)

Woodward, A. S. 1889 D, p. 435. (Carcharias.)

Zittel, K. A. 1890 A, (1887) p. 86. (Carcharias.)

Subgenus APRIONODON Gill.

Gill, T. 1862 A, p. 411. (For Aprion of Müller and Henle, preoccupied.)

Duméril, A. 1865 A, p. 348.

Günther A. 1870 A, p. 361. (Aprion.)

Jaekel, O. 1894 A, p. 162. (Aprion.)

Jordan and Evermann 1896 A, p. 42.

Müller and Henle 1841 A, p. 31. (Aprion.)

Probst, J. 1878 A, p. 121. (Aprion.)

Woodward, A. S. 1889 D, p. 437.

Zittel, K. A. 1890 A, p. 86.

Subgenus PRIONACE Cantor.

Cantor, T. E. 1850 Malayan Fishes, p. 399. (For Prionodon of Müller and Henle, preoccupied.)

Agassiz, L. 1843 B, iii, p. 243. (Glyphia.)

Duméril, A. 1865 A, p. 351. (Prionodon.)

Gegenbaur, C. 1872 A, pl. ii, fig. 4; pl. v, fig. 3; pl. viii, fig. 4; pl. xviii, fig. 5. (Prionodon.)

Gibbes, R. W. 1849 A, p. 194. (Glyphia.)

Günther, A. 1870 A, p. 363. (Prionodon.)

Hasse, C. 1882 A, p. 271, pl. xxxix. (Prionodon.)

Jaekel, O. 1894 A, p. 162. (Prionodon.)

Jordan and Evermann 1896 A, p. 33.

Müller and Henle 1841 A, p. 35. (Prionodon.)

Pictet, F. J. 1854 A, p. 236. (Glyphia.)

Probst, J. 1878 A, p. 124. (Prionodon.)

Woodward, A. S. 1889 D, p. 439. (Prionodon.)

Zittel, K. A. 1890 A, p. 86. (Prionodon.)

Carcharhinus (Prionace) antiquus (Agassiz).

Agassiz, L. 1856 A, p. 273. [Carcharias (Prionodon).]

1857 A, p. 314, pl. i, figs. 15, 16. [Carcharias (Prionodon).]

Woodward, A. S. 1889 D, p. 441. [Carcharias (Prionodon).]

Miocene; California

Carcharhinus (Prionace) egertoni (Agassiz).

Agassiz, L. 1843 B, iii, p. 228, pl. xxxvi, figs. 6, 7. (Corax egertoni.)

- Cope, E. D. 1867 C. p. 141. (*Galeocerdo*.)
 1875 F, p. 63. (*Galeocerdo*.)
 1875 H. p. 362. (*Galeocerdo*.)
 1875 V, p. 29. (*Galeocerdo*.)
- Emmons, E. 1858 B, additions and corrections to p. 242, fig. 90. (*Galeocerdo*.)
- Gibbes, R. W. 1847 A, p. 268. (*Glyphis subulata*.)
 1849 A, p. 192, pl. xxv, figs. 66-69 (*Galeocerdo egertoni*). p. 194, pl. xxv, figs. 86, 87 (*Glyphis subulata*.)
 1850 F. (*Glyphis subulata*.)
- Giebel, C. G. 1848 A, p. 371. (*Carcharias*.)
- Woodward, A. S. 1889 D, p. 439. [*Carcharias* (*Prionodon*).]
- Wyman, J. 1850 B, p. 234. (*Galeocerdo egertoni*, *Glyphis subulata*.)
 Eocene; South Carolina: Miocene; Maryland, North Carolina.

***Carcharhinus (Aprionodon) gibbesii* (Woodward).**

- Woodward, A. S. 1889 D, p. 437. [*Carcharias* (*Aprionodon*).]
- ?Cope, E. D. 1867 C, p. 142. (*Oxyrhina minuta*.)
- Eastman, C. R. 1895 A, p. 182. (*Carcharias*.)

- Gibbes, R. W. 1846 A, p. 42. (*Galeocerdo minor*, not of Agassiz.)
 1849 A, p. 192, pl. xxv, figs. 63-65 (*G. minor*)? p. 202, pl. xxvii, fig. 164 (*Oxyrhina minuta*.)
 1850 F. (*G. minor*.)
- Ledy, J. 1877 A, p. 254. (*Prionodon antiquus*.)
 Eocene; South Carolina, Alabama: Miocene; Maryland.?

***Carcharhinus (Prionace) tenuis* (Agassiz).**

- Agassiz, L. 1843 B, III, p. 242, pl. xxxa, fig. 15. (*Carcharias*.)
- ?Gibbes, R. W. 1849 A, p. 191. (*Carcharias*.)
 ?1850 G, p. 300, pl. xlii, fig. 8. (*Carcharias*.)
- Woodward, A. S. 1889 D p. 442. [*Carcharias* (*Prionodon*).]
 Senonian; Switzerland: Eocene?; South Carolina.

***Carcharhinus* sp. indet.**

- Woodward, A. S. 1889 D, pp. 455, 456.
 Eocene; Alabama.

MICRODUS Emmons. Type *M. laevis* Emmons.

Emmons, E. 1857 A, p. 48.

It is doubtful what disposition is to be made of the tooth described by Emmons under the name *Microdus laevis*.

***Microdus laevis* Emmons.**

- Emmons, E. 1857 A, p. 48 with figure.
 Triassic; North Carolina.

HEMIPRISTIS Agassiz. Type *H. serra* Agassiz.

- Agassiz, L. 1843 B, III, pp. 237, 308.
- Gibbes, R. W. 1849 A, p. 193.
- Jaekel, O. 1894 A, p. 168.
- Kiprijanoff, V. 1854 A, p. 373.
- Klunzinger, C. B. 1871 A, p. 664. (*Dirrhizodon*, type *D. elongatus*.)
- Pedroni, P. M. 1844 A, p. 284.
- Pictet, F. J. 1854 A, p. 242.
- Probst, J. 1878 A, p. 141.
- Quenstedt, F. A. 1852 A, p. 168.
 1885 A, p. 265.
- Sismonda, E. 1849 A, p. 32.
- Woodward, A. S. 1889 D, p. 448.
- Zittel, K. A. 1890 A, p. 85.

***Hemipristis heteropleurus* Agassiz.**

- Agassiz, L. 1856 A, p. 274.
 1857 A, p. 315, pl. i, fig. 14.
 Miocene; California.

***Hemipristis serra* Agassiz.**

- Agassiz, L. 1843 B, III, p. 237, pl. xxvii, figs. 18-30.
 1843 B, III, p. 238, pl. xxvii, figs. 31-33. (*H. paucidens*.)
- Cope, E. D. 1867 C, p. 142.
 1875 H, p. 362.
 1875 V, p. 29.
- Emmons, E. 1858 B, p. 235, fig. 63. (*H. crenulatus*.)
- Gemmellaro, G. G. 1857 A, p. 296, pl. i, fig. 6a.

- Gibbes, R. W. 1846 A, p. 42. (*H. serra*, *H. paucidens*, *Lamna hopel*.)
 1849 A, p. 193, pl. xxv, figs. 75-85 (*H. serra*);
 p. 198, pl. xxvi, figs. 120-123 (*Lamna hopel*.)
 1850 F. (*H. serra*, *Lamna hopel*.)
- Giebel, C. G. 1848 A, p. 368. (*H. serra*, *H. paucidens*.)
- Ledy, J. 1877 A, p. 254.
- Pedroni, P. M. 1844 A, p. 284, pl. i, fig. 20 (*H. serra*); figs. 21, 22 (*H. paucidens*).
- Pictet, F. J. 1854 A, p. 243.
- Probst, J. 1878 A, p. 143, pl. i, figs. 49-57.
- Quenstedt, F. A. 1885 A, p. 265, fig. 81.
- Sauvage, H. E. 1875 A, p. 634, pl. xxii, fig. 2. (*Odontaspis sacheri*.)
- Sismonda, E. 1849 A, p. 33, pl. i, figs. 17, 18.
- Woodward, A. S. 1884 A, p. 228, fig. 133.
 1889 D, p. 449.
 1900 A, p. 5, pl. i, figs. 11, 11a.
- Wyman, J. 1850 B, p. 234.
- Zittel, K. A. 1890 (1887) A, p. 85, fig. 89.
- For additional bibliography see Woodward, A. S. 1889 D, p. 449.
- Tertiary; Europe: Eocene; North Carolina, South Carolina: Miocene; Virginia: Pliocene?; Argentine Republic.
- Hemipristis* sp. indet.**
 Woodward, A. S. 1889 D, p. 456.
 Eocene; South Carolina.

SPHYRNINÆ.

- Duméril, A. 1865 A, p. 380. (Cestraciontes.)
 Günther, A. 1870 A, p. 353. (Zygæna.)
 Jordan and Evermann 1896 A, p. 43. (Sphyrnidae.)

SPHYRNA Rafinesque. Type *Squalus zygena* Linn.

- Rafinesque*, C. S., 1810, Caratteri di alcuni generi, etc., p. 12.
 Agassiz, L. 1843 B, iii., pp. 234, 303, 366, pl. N, figs. 8-10.
 Duméril, A. 1865 A, p. 381. (Cestracion.)
 Gegenbaur, C. 1872 A. (Zygæna.)
 Gibbs, R. W. 1849 A, p. 194.
 Günther, A. 1870 A, p. 380. (Zygæna.)
 1880 A, p. 318. (Zygæna.)
 Hasse, C. 1882 A, p. 273. (Zygæna.)
 Hubrecht, A. A. W. 1878 A. (Zygæna.)
 Jaekel, O. 1894 A, p. 165. (Zygæna.)
 Jordan and Evermann 1896 A, p. 43.
 Klunzinger, C. B. 1871 A, p. 665. (Zygæna.)
 Mivart, St. G. 1879 A. (Zygæna.)
 Müller and Henle 1841 A, p. 51.
 Woodward, A. S. 1889 D, p. 453.
 Zittel, K. A. 1890 A, p. 86.

Sphyrna gibbesii, nom. nov.

- Emmons, E. 1858 B, additions and corrections to p. 241, fig. 84a. (S. denticulata.)
 Gibbs, R. W. 1849 A, p. 195, pl. xxv, fig. 94. (S. denticulata, not of Agassiz.)
 1850 F. (S. denticulata.)
 Eocene; South Carolina, North Carolina.

Sphyrna lata Agassiz.

- Agassiz, L. 1843 B, iii., p. 235, pl. xxvii, figs. 58, 59.
 Gibbs, R. W. 1849 A, p. 195, pl. xxv, figs. 91-93.
 1850 F.
 Woodward, A. S. 1889 D, p. 454.
 Wyman, J. 1850 B, p. 234.
 Tertiary; Virginia; Eocene; South Carolina.
 The identification of the American specimens with Agassiz's species is doubtful.

Sphyrna magna Cope.

- Cope, E. D. 1867 C, p. 142.
 Woodward, A. S. 1889 D, p. 455.
 Miocene; Virginia.

Sphyrna prisca Agassiz.

- Agassiz, L. 1843 B, iii., p. 234, pl. xxvi a, figs. 35-50.
 Cope, E. D. 1867 C, p. 142.
 1875 H, p. 362. (Zygæna.)
 1875 V, p. 29. (Zygæna.)
 Gemmellaro, G. G. 1857 A, p. 295, pl. i, fig. 5; pl. vi, fig. 3.
 Gibbs, R. W. 1889 A, p. 194, pl. xxv, figs. 88-90.
 Pedroni, P. M. 1844 A, p. 284, pl. i, figs. 15, 16.
 Woodward, A. S. 1889 D, p. 453.
 Zittel, K. A. 1890 A, p. 86, fig. 93. (S. serrata.)
 Miocene; Europe, Maryland, New Jersey, North Carolina, South Carolina.

Superfamily SQUALOIDEA.

- Gill, T. 1893 A, p. 129. (Tectospondyli, *lapeu calami*.)
 Hasse, C. 1879 A, p. 41. (Cyclospondyli.)
 1882 A, pp. 55-94, pls. viii-x.
 Jaekel, O. 1894 A, p. 51. (Cyclospondyli.)

- Jordan and Evermann 1896 A, p. 53. (Cyclospondyli.)
 Woodward, A. S. 1889 D, p. xxvii. (Cyclospondyli.)

SOMNIOSIDÆ.

- Gill, T. 1895 A, p. 192.
 Duméril, A. 1865 A, p. 450. (Scymni.)
 Gill, T. 1862 A, p. 405. (Scymnoidæ, Echinorhinoidæ.)
 1893 A, p. 129. (Dalatidæ and Echinorhinidæ.)
 Günther, A. 1870 A, p. 417. (Spinaciidæ, in part.)

SCYMNORHINUS Bonaparte.

- Bonaparte*, C. S. 1816, Cat. Met. Pesci Europei, p. 16.
 Agassiz, L. 1843 B, iii., pp. 305, 367. (Scymnus.)
 Cuvier, G. 1817, Règne Anim., ii, p. 130. (Scymnus, preoccupied.)
 Duméril, A. 1865 A, p. 450.
 Gegenbaur, C. 1872 A, pl. i, fig. 3; pl. iv, fig. 3; pl. vii, fig. 3; pl. xi, fig. 1; pl. xvii, fig. 4; pl. xix, fig. 2. (Scymnus.)
 Gill, T. 1895 A.
 Hasse, C. 1878 A, p. 168. (Scymnus.)
 1882 A, p. 65, pl. ix. (Scymnus.)
 Hubrecht, A. A. W. 1878 A. (Scymnus.)
 Kölliker, A. 1863 A, p. 26. (Scymnus.)

- Hasse, C. 1879 A, p. 43. (Scymnidae.)
 Jordan and Evermann 1896 A, p. 56 (Dalatidæ); p. 57 (Echinorhinidæ).
 Müller and Henle 1841 A, p. 91. (Scymni.)
 Woodward, A. S. 1889 D, p. 30. (Spinaciidæ, in part.)
 Zittel, K. A. 1890 A, p. 87. (Spinaciidæ, in part.)

Type *Scymnus lichia* Cuvier.

- Müller and Henle 1837 A, p. 116. (Scymnus.)
 1837 B, p. 399. (Scymnus.)
 1838 A, p. 89. (Scymnus.)
 1841 A, p. 91. (Scymnus.)
 Woodward, A. S. 1889 D, p. 33. (Scymnus.)
 Zittel, K. A. 1890 A, p. 88. (Scymnus.)

Scymnorhinus occidentalis (Agassiz).

- Agassiz, L. 1856 A, p. 272. (Scymnus.)
 1857 A, p. 314, pl. i, figs. 9-13. (Scymnus.)
 Woodward, A. S. 1889 D, p. 458. (Scymnus.)
 Miocene; California.

ECHINORHINUS Blainville. Type *Squalus spinosus* Gmelin.

Blainville, H. M. D., 1816, Bull. Soc. Philom., p. 121.
Agassiz, L. 1843 B (1838), iii, p. 94. (Goniodus.)
Duméril, A. 1865 A, p. 458.
Günther, A. 1870 A, p. 428.
Hasse, C. 1882 A, p. 73, pl. ix.
Jordan and Evermann 1896 A, p. 57.
Müller and Henle 1838 A, p. 89.

Müller and Henle 1841 A, p. 96.
Woodward, A. S. 1889 D, p. 34.

Echinorhinus blakei Agassiz.

Agassiz, L. 1856 A, p. 272.
 1857 A, p. 313, pl. i, figs. 7, 8, 17.
 Miocene of California.

Suborder **RAJÆ**.

Brühl, B. C. 1847 A.
Duméril, A. 1865 A, p. 468. ("Rales ou Hypotremes.")
Gegenbaur, C. 1872 A.
Gill, T. 1893 A, p. 130. (Hypotremi.)
Günther, A. 1870 A, p. 434. (Batoidel.)
 1890 A, p. 335. (Batoidel.)
Haeckel, E. 1895 A, p. 236. (Rajacel.)
Hasse, C. 1879 A, p. 44. (Tectospondyli.)
 1882 A, p. 163. (Tectospondyli.)
Haswell, W. A. 1884 A, p. 115. (Batoidel.)
Jaekel, O. 1890 C.
 1890 D, p. 110. (Tectospondyli.)
 1892 A.

Jaekel, O. 1894 A, p. 40. (Batoidel.)
 1898 A, p. 44. ("Roehen.")
Jordan and Evermann 1896 A, p. 59. (Batoidel.)
Kehner, F. A. 1876 A. (Raji.)
Köetlin, O. 1844 A, p. 425. ("Roehen.")
Müller, J. 1846 C, p. 203. (Rajidæ.)
Müller and Henle 1841 A, p. 103.
Parker, W. K. 1878 A. (Raji.)
Steinmann and Döderlein 1890 A, p. 549. (Batoidel.)
Woodward, A. S. 1889 D, p. 30. (Tectospondyli, in part.)
Zittel, K. A. 1890 A, p. 93. (Batoidel.)

Superfamily **PACHYURA** Gill.

Gill, T. 1872 C, p. 23.
 1882, in *Jordan and Gilbert's Synop. N. A. Fishes*, p. 36.
 1893 A, p. 130. (Sarcura.)

Jaekel, O. 1894 A, p. 69. (Rhinorajl.)
 1898 A, p. 45. (Rhinorajl.)
Jordan and Evermann 1896 A, p. 59. (Sarcura.)

TAMIOBATIDÆ, nom. nov.**TAMIOBATUS** Eastman. Type *T. vetustus* Eastman.

Eastman, C. R. 1897 A, p. 85.
Müller, S. A. 1897 A, p. 793.
 Relationships to the Rhinobatidæ doubtful.

Tamiobatis vetustus Eastman.

Eastman, C. R. 1897 A, p. 85, pl. i.
 Devonian?; Kentucky.

RAJIDÆ.

Agassiz, L. 1843 B, iii, p. 73. ("Rales.")
Duméril, A. 1865 A, p. 525. (Rajæ.)
Günther, A. 1870 A, pp. 435, 455.
 1880 A, p. 340.
 1881 A, p. 686.
Hasse, C. 1878 A, p. 170.
 1879 A, p. 48. (Rajæ.)
 1882 A, p. 163. (Rajæ.)
Haswell, W. A. 1884 A, p. 117.
Howes, G. B. 1890 A.
Hubrecht, A. A. W. 1878 A.
Kölliker, A. 1860 B, p. 212.
Jaekel, O. 1890 A, p. 94.

Jaekel, O. 1891 D, p. 191.
 1894 A, p. 81.
 1898 A, p. 52.
Jordan and Evermann 1896 A, p. 66.
Müller and Henle 1841 A, p. 132. (Rajæ.)
Nicholson and Lydekker 1889 A, p. 933.
Owen, R. 1845 B, p. 43.
Stannius, H. 1854 A.
Steinmann and Döderlein 1890 A, p. 550.
Stephan, P. 1900 A.
Woodward, A. S. 1889 D, p. 84.
Zittel, K. A. 1890 A, p. 103.

RAJA Linn. Type *R. batis* Linn.

Linnaeus, C., 1858, Syst. Nat., ed. x, p. 231.
Duméril, A. 1865 A, p. 526.
Gegenbaur, C. 1872 A, pl. iii, fig. 2; pl. vi, fig. 4; pl. xiii, fig. 1; pl. xiv, figs. 4, 6; pl. xv, fig. 1.

Günther, A. 1870 A, p. 455.
 1880 A, p. 340.
Hasse, C. 1878 A.
 1882 A, p. 163, pl. xxii.

Hubrecht, A. A. W. 1878 A.
 Jordan and Evermann 1896 A, p. 66.
 Müller and Henle 1837 A, p. 111.
 1841 A, p. 132, plates.
 Stephan, P. 1900 A.
 Woodward, A. S. 1889 D, p. 85.
 Zittel, K. A. 1890 A, p. 104.

Raja dux Cope.

Cope, E. D. 1867 C, p. 141.
 Woodward, A. S. 1889 D, p. 459.
 Miocene; Maryland.

GRYPHODOBATIS Leidy. Type *G. uncus* Leidy.

Leidy, J. 1877 A, p. 249.
 A genus whose position is doubtful.

Gryphodobatis uncus Leidy.

Leidy, J. 1877 A, p. 249, pl. xxxiv, figs. 8, 9.
 Woodward, A. S. 1889 D, p. 156.
 Phosphate beds; South Carolina.

ONCOBATIS Leidy. Type *O. pentagonus* Leidy.

Leidy, J. 1870 K, p. 70.
 Nicholson and Lydekker, 1889 A, p. 934.
 Woodward, A. S. 1889 D, p. 90.

Oncobatis pentagonus Leidy.

Leidy, J. 1870 K, p. 70.

Cope, E. D. 1888 L, p. 153. (*Raja*)
 Leidy, J. 1871 C, p. 370.
 1873 B, pp. 264, 353, pl. xvii, figs. 18, 19.
 Woodward, A. S. 1889 D, p. 90.
 Pliocene; Idaho.

PRISTIDÆ.

Duméril, A. 1865 A, p. 471. (*Pristides*.)
 Gegenbaur, C. 1872 A.
 Günther, A. 1870 A, p. 436.
 1880 A, p. 336.
 1881 A, p. 686.
 Hasse, C. 1882 A, p. 121.
 Haswell, W. A. 1884 A, p. 116.
 Hubrecht, A. A. W. 1878 A.
 Jaekel, O. 1894 A, p. 75.

Jordan and Evermann 1896 A, p. 60.
 Müller and Henle 1841 A, p. 106. (*Pristides*.)
 Nicholson and Lydekker 1889 A, p. 930.
 Pictet, F. J. 1854 A, p. 274. (*Pristides*.)
 Woodward, A. S. 1885 B, p. 227.
 1888 B, p. 451.
 1889 D, p. 73.
 1898 B, p. 52.
 Zittel, K. A. 1890 A, p. 94.

PRISTIS LATHAM. Type *Squalus pristis* Linn. = *Pristis antiquorum*.

Latham, John 1794, Trans. Linn. Soc., II, p. 276.
 Agassiz, L. 1843 B, III, p. 382.
 Duméril, A. 1865 A, p. 471.
 Gegenbaur, C. 1872 A, pl. III, fig. 4; pl. XIII, figs. 4-6; pl. XIV, fig. 2.
 Günther, A. 1880 A, p. 347.
 Hasse, C. 1882 A, p. 121, pl. XVI.
 Hubrecht, A. A. W. 1878 A, pl. II, figs. 2-5, 8.
 Jaekel, O. 1890 D.
 1894 A.
 Jordan and Evermann 1896 A, p. 60.
 Müller and Henle 1837 A, p. 116.
 1837 B, p. 399.
 1841 A, p. 105.
 Nicholson and Lydekker 1889 A, p. 190.
 Owen, R. 1845 B, p. 40, pls. VIII, IX.
 Pictet, F. J. 1854 A, p. 275.
 Stannius, H. 1854 A.
 Tomes, C. S. 1898 A, p. 246.
 Woodward, A. S. 1889 D, p. 73.
 1899 A, p. 3.
 Zittel, K. A. 1890 A, p. 94.

Pristis agassizi Gibbs.

Gibbs, R. W. 1847 B, p. 11, pl. I, figs. 6, 7,
 Woodward, A. S. 1889 D, p. 75.
 Eocene; South Carolina.

Pristis amblodon Cope.

Cope, E. D. 1869 L, p. 312.
 1875 H, p. 382.
 Woodward, A. S. 1889 D, p. 458.
 Eocene; New Jersey.

Pristis attenuatus Cope.

Cope, E. D. 1869 F, p. 244.
 1875 V, p. 29.
 Woodward, A. S. 1889 D, p. 459.
 Tertiary; North Carolina.

Pristis brachyodon Cope.

Cope, E. D. 1869 A, p. 312.
 1875 V, p. 29.
 Woodward, A. S. 1889 D, p. 459.
 Cretaceous (Greensand); Virginia; Miocene;
 North Carolina.

Pristis curvidens Leidy.

Leidy, J. 1855 D.
 Woodward, A. S. 1889 D, p. 75.
 Cretaceous (Greensand); New Jersey.

Pristis ensidens Leidy.

Leidy, J. 1855 D.
 1877 A, p. 252, pl. XXXIV, figs. 31, 32.
 Woodward, A. S. 1889 D, p. 75.
 Phosphate beds; South Carolina.

Superfamily MASTICURA GÜLL.

Gill, T. 1872 C, p. 22.

1882, in Jordan and Gilbert's Synop. Fishes

N. A., p. 36.

1898 A, p. 130.

Jaekel, O. 1894 A, pp. 64, 115. (Centrobatii.)

1898 A, p. 45. (Centrobatii.)

1899 A, p. 298. (Centrobatidae.)

Jordan and Evermann 1896 A, pp. 59, 79.

PTYCHODONTIDÆ.

Jaekel, O. 1898 A, p. 51. (Ptychodontinae.)

HEMIPTYCHODUS Jaekel. Type *Ptychodus mortoni* Mantell.

Jaekel, O. 1894 A, p. 137.

Hemiptychodus mortoni (Mantell).

Mantell, G. A., in Morton, S. G. 1842 A, p. 215, pl. xi, figs. 7, 7a. (Ptychodus.)

Agassiz L. 1843 B, iii, p. 158, pl. xxv, figs. 1-3. (Ptychodus.)

Cope, E. D. 1874 C, p. 48. (Ptychodus.)

1875 E, p. 294. (Ptychodus.)

Dana, J. D. 1896 A, p. 843, fig. 1406. (Ptychodus.)

De Kay, J. E. 1842 B, p. 386. (Ptychodus.)

Dixon, F. 1878 A, p. 392, pl. xxxi, figs. 6, 7. (Ptychodus.)

Glebel, C. G. 1848 A, p. 334. (Ptychodus.)

Hilgard, E. W. 1860 A, p. 389. (Ptychodus.)

Jaekel, O. 1894 A, p. 137. (Hemiptychodus.)

Leidy, J. 1868 H, p. 205. (Ptychodus.)

1870 H, p. 12. (Ptychodus.)

1873 B, pp. 295, 352, pl. xviii, figs. 1-14. (Ptychodus.)

Morton, S. G. 1834 A, pl. xviii, figs. 1, 2. (No name or description.)

Tuomey, M. 1858 A, p. 268. (Ptychodus.)

Williston, S. W. 1900 A, p. 30, pl. vii; pl. viii, fig. 1; pl. ix. (Ptychodus.)

1900 B, p. 238, pls. xxv, xxvi, fig. 1; pl. xxviii. (Ptychodus.)

Woodward, A. S. 1887 B, p. 130. (Ptychodus.)

1889 D, p. 149. (Ptychodus.)

Cretaceous; Alabama, Mississippi, Kansas.

PTYCHODUS Agassiz. Type *P. mammillaris* Agassiz.

Agassiz, L. 1843 B (1835), Feuill., p. 54.

1843 B (1839), iii, pp. 56, 150.

1844 A.

Cope, E. D. 1874 C, p. 47. (Sporetodus, type *S. janewayii*.)

1886 S.

Davis, J. W. 1890 A, p. 375.

Dixon, F. 1859 A, p. 361.

1858 A, p. 390.

Hesse, C. 1884, Palaeontographica, xxxi, p. 9, pl. ii, figs. 16, 17. (Selache davidi.)

Jaekel, O. 1890 A, p. 94.

1891 D, p. 191.

1894 A, p. 132.

Geinitz, H. B. 1839 A, pp. 12, 38, 63.

Leidy J. 1868 H.

1870 H.

Mackie, S. J. 1863 B.

Owen, R. 1845 B, p. 57, pls. xvii-xix.

1860 E, p. 110.

Pictet, F. J. 1854 A, p. 264.

Priem, F. 1896 A.

Quenstedt, F. A. 1852 A, p. 180.

1886 A, p. 281.

Sauvage, H. E. 1870 A, p. 15.

Williston, S. W. 1900 A, p. 29.

Woodward, A. S. 1885 B, p. 107.

1887 B.

1888 I, p. 294, fig. 1.

1889 D, p. 122.

Zittel, K. A. 1890 A, p. 78, figs. 77, 78.

Ptychodus anonymus Willist.

Williston, S. W. 1900 A, p. 32, pl. xi, figs. 5-8, 16-18, 20-22, 24.

1900 B, p. 241, pl. xxix, figs. 5-8, 16-18, 20-22, 24. Cretaceous (Niobrara, Benton?); Kansas.

Ptychodus decurrens Agassiz.

Agassiz, L. 1843 B (1839), Feuill., p. 54.

1843 B (1839), iii, p. 154, pl. xxv b, figs. 1, 2, 4, 6-8 (not figs. 3, 5).

Dixon, F. 1850 A, p. 362, pl. xxx, figs. 7, 8; pl. xxxi, fig. 1; pl. xxxii, fig. 5 (P. decurrens); p. 363, pl. xxxi, fig. 9 (P. depressus).

1858 A, p. 390, pl. xxx, figs. 7, 8; pl. xxxi, fig. 1; pl. xxxii, fig. 5.

Fritsch, A. 1878 A, p. 14, fig. 34.

Kiprijanoff, V. 1852 A, p. 490, pl. xlii, figs. 4, 5.

Owen, R. 1845 B, ii, p. 57, pls. xviii, xix.

Quenstedt, F. A. 1852 A, p. 181, pl. xlii, fig. 59.

1885 A, p. 281, text fig. 86; pl. xxi, figs. 63, 64.

Reuss, A. E. 1846 A, p. 1, pl. ii, figs. 9, 10.

Sauvage, H. E. 1870 A, p. 18.

1879 A, p. 58, pl. iii, figs. 25, 26.

Woodward, A. S. 1887 B, pl. x, figs. 1-10, 13.

1889 D, p. 138.

1898 B, p. 53, fig. 42.

Zittel, K. A. 1890 A, p. 79, figs. 78 a, b.

Cretaceous; England, France, Germany; also from Kearns Cañon, Arizona (specimen in U. S. National Museum).

Ptychodus janewayii Cope.

Cope, E. D. 1874 C, p. 47. (Sporetodus.)

1875 E, pp. 244, 294. (P. janewayii.)

Williston, S. W. 1900 A, p. 33, pl. xii, figs. 9, 10, 11. (P. janewayii.)

1900 B, p. 242, pl. xxx, figs. 9, 10, 11. (P. janewayii.)

Woodward, A. S. 1889 D, p. 151.

Cretaceous (Niobrara); Kansas.

***Ptychodus mammillaris* Agassiz.**

- Agassiz, L.* 1843 B (1835), Feuill., p. 54.
 1813 B (1839), iii, p. 151, pl. xxv b, figs. 11-20
 (P. *mammillaris*); p. 154, pl. xxv b, figs. 3,
 5 (P. *decurrens*); p. 155, pl. xxv b, figs. 9,
 10 (P. *altior*).
Cope, E. D. 1875 E, p. 294.
Davis, J. W. 1890 A, p. 378, pl. xxxviii.
De Kay, J. E. 1842 B, p. 386.
Dixon, F. 1850 A, p. 361, pl. xxx, fig. 6; pl. xxxi,
 fig. 4.
 1878 A, p. 390, pl. xxx, fig. 6; pl. xxxi, fig. 4.
Fritsch, A. 1878 A, p. 14, text fig. 33.
Glebel, C. G. 1848 A, p. 333.
Kiprijanoff, V. 1852 A, p. 487, pl. xli, fig. 3; pl. xlii,
 fig. 3.
Pictet, F. J. 1864 A, p. 265, pl. xxviii, fig. 27.
Quenstedt, F. A. 1852 A, p. 181.
 1885 A, p. 282, pl. xxi, figs. 61, 62. (P. *de-*
currens.)
Reuss, A. E. 1846 A, p. 2, pl. ii, figs. 11-13.
Sauvage, H. E. 1870 A, p. 16, figs. 86-89.
Woodward, A. S. 1885 B, p. 109, fig. 81.
 1889 D, p. 133.
 Cretaceous; Europe, Delaware.
 For additional citations of literature bearing
 on European specimens, see Woodward, A. S.,
 1889 D, p. 133.

***Ptychodus martini* Willist.**

- Williston, S. W.* 1900 A, p. 32, pl. x.
 1900 B, p. 240, pl. xxviii.
 Cretaceous (Niobrara); Kansas.

***Ptychodus occidentalis* Leidy.**

- Leidy, J.* 1868 H, p. 207.
Cope, E. D. 1874 C, p. 48.
 1875 E, p. 294.
Leidy, J. 1873 E, pp. 296, 352, pls. xvii, figs. 7, 8;
 pl. xviii, figs. 15-18.
Williston, S. W. 1900 A, p. 33, pl. xi, fig. 4; pl. xii,
 fig. 13.
 1900 B, p. 242, pl. xxix, fig. 4; pl. xxx, fig. 13.
Woodward, A. S. 1889 D, p. 151.
 Cretaceous (Niobrara); Kansas.

***Ptychodus papillosus* Cope.**

- Cope, E. D.* 1875 E, p. 294.
 1875 F, p. 63.
 Cretaceous; Colorado.

***Ptychodus parvulus* Whiteaves.**

- Whiteaves, J. F.* 1889 B, p. 191, pl. xxvi, figs. 5 a,
 b, c.
 Cretaceous (Niobrara); Manitoba.

***Ptychodus polygyrus* Agassiz.**

- Agassiz, L.* 1843 B (1835), Feuill., p. 55.
Agassiz, L., in Buckland, W. 1837 A, pl. xxxvii f.
 (No description).
Agassiz, L. 1843 B (1839) B, iii, p. 156, pl. xxv, figs.
 4-11; pl. xxv b, figs. 21-23.
Cope, E. D. 1874 C, p. 48.
 1875 E, p. 294.
Dixon, F. 1850 A, p. 363, pl. xxx, fig. 9; pl. xxxi, fig.
 10 (P. *polygyrus*); p. xli, pl. xxx, figs. 1, 2 (P.
latissimus).
 1878 A, p. 391, pl. xxx, figs. 1, 2 (P. *latissi-*
mus); p. 392, pl. xxx, fig. 9; pl. xxi, fig. 10
 (P. *polygyrus*).
Fritsch, A. 1878 A, p. 14, fig. 35. (P. *polygyrus*.)
Gibbes, R. W. 1850 A.
 1850 G, pl. 42, figs. 5, 6.
Glebel, C. G. 1848 A, p. 333.
Kiprijanoff, V. 1852 A, p. 494, pl. xlii, fig. 6.
Leidy, J. 1868 H, p. 208.
 1873 B, p. 352.
Mackie, S. J. 1863 B, pl. ix.
Williston, S. W. 1900 A, p. 31, pl. xi, fig. 9; pl. x,
 fig. 14.
 1900 B, p. 240, pl. xxix, fig. 9; pl. xxx, fig. 14.
Woodward, A. S. 1885 B, p. 109, fig. 82.
 1889 D, p. 143.
 1896 B, p. 52, fig. 41.
 Cretaceous; Alabama, Kansas.

***Ptychodus whipplei* Marcou.**

- Marcou, J.* 1868 A, p. 33, pl. i, figs. 4, 4a.
Cope, E. D. 1874 C, p. 48. (P. *whipplei*.)
 1875 E, p. 294. (P. *whipplei*.)
 1875 F, p. 63. (P. *whipplei*.)
Leidy, J. 1873 B, pp. 300, 352, pl. xviii, figs. 19, 20.
 (P. *whipplei*.)
Newberry, J. S. 1876 A, p. 137, pl. iii, figs. 2-2f. (P.
whipplei.)
Osborn, Scott and Speir 1878 A, p. 106. (P.
whipplei.)
Williston, S. W. 1900 A, p. 33, pl. xi, figs. 10-15.
 1900 B, p. 243, pl. xxix, figs. 10-15. (P.
whipplei.)
Woodward, A. S. 1889 D, p. 152. (P. *whipplei*.)
 Cretaceous (Niobrara); Kansas, Colorado,
 New Mexico.

***Ptychodus* sp. indet.**

- Williston, S. W.* 1900 A, p. 34, pl. xi, figs. 2, 3, pl.
 xlii, fig. 53.
 1900 B, p. 243, pl. xxix, figs. 2, 13; pl. xxxi,
 fig. 53.
 Cretaceous (Benton); Kansas

DASYATIDÆ.

Jordan and Evermann 1896 A, p. 79.

Unless otherwise stated, the authors below
 cited refer to this family under the name
Trygonidae:

- Duméril, A.* 1865 A, p. 578. (Trygones.)
Gegenbaur, C. 1865 B.
Gill, T. 1893 A, p. 130. (Dasybatidæ.)

Günther, A. 1870 A, p. 471.

- 1880 A, p. 342.
 1881 A, p. 686.
Hasse, C. 1878 A, p. 169.
 1879 A, p. 47.
 1882 A, p. 136.
Haswell, W. A. 1884 A, p. 117.

Howes, G. B. 1890 A.

Jaekel, O. 1890 C, p. 56.

1891 D, p. 191. ("Torpediniden.")

1894 A, p. 139. (Trygoninæ.)

1898 A, p. 51. (Trygoninæ.)

DASYATIS Rafinesque. Type *D. ujus* = *D. pastinica* Linn.

Rafinesque, C. S., 1810, Caratteri di alcuni nuovi generi, p. 16.

Unless otherwise stated, the following authors refer to this genus under the name *Trygon*:

Cope, E. D. 1879 O. (*Xiphotrygon*, type *X. acutidens*.)

1884 O, p. 49. (*Xiphotrygon*.)

Duméril, A. 1865 A, p. 582.

Gegenbaur, C. 1872 A, pl. iii; pl. vi, fig. 6; pl. xi, fig. 4; pl. xiii, fig. 2; pl. xiv, fig. 3.

Günther, A. 1880 A, p. 343.

Hasse, C. 1878 A, p. 170.

1882 A, p. 142, pl. xix.

Haswell, W. A. 1884 A, p. 100.

Howes, G. B. 1890 A.

Hubrecht, A. A. W. 1878 A.

Jaekel, O. 1890 A, p. 94.

1894 A, p. 144.

Jordan and Evermann 1896 A, p. 82. (*Dasyatis*.)

Marsh, O. C. 1877 D, p. 261. (*Heliobatis*, type *H. radians*.)

Müller and Henle 1837 A, p. 117.

1838 A, p. 90.

1841 A, p. 158.

Newberry, J. S. 1888 B, p. 121. (*Heliobatis*.)

Nicholson and Lydekker 1889 A, p. 937.

Woodward, A. S. 1889 D, p. 153. (*Xiphotrygon*.)

Zittel, K. A. 1890 A, p. 106. (*Trygon*, *Xiphotrygon*.)

Müller and Henle 1841 A, p. 156. (*Trygones*.)

Woodward, A. S. 1889 D, p. 152.

Zittel, K. A. 1890 A, p. 106.

Dasyatis carolinensis (Emmons).

Emmons, E. 1858 B, p. 243, figs. 91, 92, 94, 96. (*Trygon*.)

1860 A, p. 215, fig. 183^a. (*Trygon*.)

Tertiary; North Carolina.

Dasyatis hastata? (De Kay).

De Kay, J. E. 1842 B, p. 373, pl. lxxv, fig. 214. (*Trygon*.)

Jordan and Evermann 1896 A, p. 84.

Ledy, J. 1860 B, p. 119, pl. xxvii, figs. 1, 2.

Post-pliocene; South Carolina.

Dasyatis radians (Marsh).

Marsh, O. C. 1877 D, p. 256. (*Heliobatis*.)

Cope, E. D. 1879 O. (*Xiphotrygon acutidens*.)

1884 O, p. 50, pl. i, figs. 1-5. (*X. acutidens*.)

Jaekel, O. 1894 A, p. 134. [*Trygon* (*Tæniura*).]

King, C. 1878 A, p. 394. (*Heliobatis*.)

Woodward, A. S. 1889 D, p. 155. (*X. acutidens*.)

Zittel, K. A. 1890 A, p. 105. (*X. acutidens*.)

Eocene (Green R.); Wyoming.

Dasyatis sp. indet.

Ledy, J. 1873 B, p. 353, pl. xxxii, figs. 54, 55. (*Trygon*.)

Miocene; Virginia.

MYLIOBATIDÆ.

Duméril, A. 1865 A, p. 631. (*Myliobatides*.)

Gegenbaur, C. 1865 B.

Gill, T. 1893 A, p. 130. (*Aëtobatidæ*.)

1894 A. (*Aëtobatidæ*.)

Günther, A. 1870 A, p. 488. (*Myliobatina*.)

1880 A, p. 344.

1881 A, p. 686.

Hasse, C. 1878 A, p. 170.

1879 A, p. 47.

1882 A, p. 149.

Haswell, W. A. 1884 A, p. 117.

Jaekel, O. 1891 D, p. 191.

1894 A, p. 150. (*Myliobatinae*.)

1898 A, p. 51. (*Myliobatinae*.)

Jordan and Evermann, 1896 A, p. 87.

Müller and Henle 1841 A, p. 176. (*Myliobatides*.)

Nicholson and Lydekker, 1889 A, p. 935.

Pictet, F. J. 1854 A, p. 279. (*Myliobatides*.)

Semon, R. 1899 A, p. 76.

Stannius H. 1854 A. (*Myliobatides*.)

Steinmann and Döderlein, 1890 A, p. 549.

Woodward, A. S. 1889 D, p. 109.

Zittel, K. A. 1890 A, p. 99.

MYLIOBatis Dum. Type *Raja aquila* Linn.

Duméril, C. 1817, in Cuvier's Règne Anim., ii, p. 137.

By many of the following authors this name is spelled *Myliobates*.

Agassiz, L. 1843 B, iii, p. 317.

Duméril, A. 1865 A, p. 633.

Gibbes, R. W. 1850 G.

Gill, T. 1894 A, p. 113.

Günther, A. 1870 A, p. 488.

1880 A, p. 344.

Hasse, C. 1882 A, p. 148, pls. xx, xxi

Howes, G. B. 1890 A.

Hubrecht, A. A. W. 1878 A.

Jaekel, O. 1890 A, p. 94.

1894 A, p. 129.

Jordan and Evermann 1896 A, p. 89.

Müller and Henle, 1837 A, p. 117.

1837 B, p. 401.

1841 A, p. 176.

Nicholson and Lydekker 1889 A, p. 935.

Owen, R. 1845 B, p. 46, pls. xxv-xxvii.

Quenstedt, F. A. 1852 A, p. 182.

1885 A, p. 287.

Röse, C. 1897 A, p. 39, figs. 9-15.

Sismunda, E. 1849 A, p. 50.

Steinmann and Döderlein, 1890 A, p. 549.

Tomes, C. S. 1898 A, p. 247.

Treuenfels, P. 1896 A, p. 1, pls. 1, 11.

Woodward, A. S. 1888 F.

1889 D, p. 109.

1899 A, p. 3.

Wyman, J. 1850 B, p. 234.

Zittel, K. A. 1890 A, p. 100.

Myliobatis bisulcus Marsh.

Marsh, O. C. 1870 E, p. 229.

Leidy, J. 1877 A, p. 239.

Woodward, A. S. 1889 D, p. 121.

Eocene; New Jersey.

Myliobatis copeanus Clark.

Clark, W. B. 1895 A, p. 4.

1897 A, p. 61, pl. vii, figs. 3a, 3b.

Eocene; Maryland, Virginia.

Myliobatis fastigiatus Leidy.

Leidy, J. 1877 A, p. 239, pl. xxxi, fig. 11.

1876 E, p. 86. (No description.)

Woodward, A. S. 1889 D, p. 121.

Eocene; New Jersey.

Myliobatis gigas Cope.

Cope, E. D. 1867 C, p. 140.

Leidy, J. 1877 A, p. 241, pl. xxxiii, fig. 4.

Woodward, A. S. 1889 D, p. 122.

Miocene; Maryland.

Myliobatis glottoides Cope.

Cope, E. D. 1870 F, p. 293.

Eocene; New Jersey.

Myliobatis holmesii Gibbes.

Gibbes, R. W. 1850 G, p. 299, pl. xlii, figs. 1-3.

Cope, E. D. 1867 C, p. 140.

Gibbes, R. W. 1850 B. (No description.)

Leidy, J. 1876 E, p. 86. (M. magister; no description.)

1877 A, p. 233, pl. xxxiii, fig. 7 (M. magister); p. 234 (M. holmesii).

Woodward, A. S. 1889 D, p. 122.

Phosphate beds; South Carolina.

Myliobatis jugosus Leidy.

Leidy, J. 1877 A, p. 240, pl. xxxi, figs. 4, 5.

1876 E, p. 86. (No description.)

Woodward, A. S. 1889 D, p. 122.

Eocene; New Jersey.

Myliobatis leidy Hay.

Hay, O. P. 1899 E, p. 755.

Leidy, J. 1855 C, p. 396. (M. serratus, not of H. v. Meyer, 1843.)

1877 A, p. 239, pl. xxxii, fig. 5. (M. serratus.)

Woodward, A. S. 1888 F, p. 38. (M. serratus.)

1889 D, p. 123. (M. serratus.)

Eocene; New Jersey.

Myliobatis mordax Leidy.

Leidy, J. 1877 A, p. 234, pl. xxxiv, fig. 3.

1876 E, p. 86. (No description.)

Woodward, A. S. 1889 D, p. 123.

Phosphate beds; South Carolina.

Myliobatis pachyodon Cope.

Cope, E. D. 1867 C, p. 140.

Leidy, J. 1877 A, p. 242, pl. xxxii, fig. 6.

Woodward, A. S. 1889 D, p. 123.

Miocene; Maryland.

Myliobatis rectidens Cope.

Cope, E. D. 1870 F, p. 294.

Cretaceous; New Jersey.

Myliobatis rugosus Leidy.

Leidy, J. 1855 C, p. 396.

1855 C, p. 396. (M. obesus.)

1877 A, p. 236, pl. xxxi, figs. 6-10; pl. xxxiv, fig. 44. (M. obesus.)

Woodward, A. S. 1889 D, p. 123.

Eocene; New Jersey.

Myliobatis transversalis Gibbes.

Gibbes, R. W. 1850 G, pl. xlii, fig. 4.

1850 B. (No description.)

Woodward, A. S. 1889 D, p. 124.

Eocene; South Carolina.

Myliobatis vicomicanus Cope.

Cope, E. D. 1867 C, p. 140.

1870 F, p. 294.

Leidy, J. 1877 A, p. 242, pl. xxxiii, fig. 5.

Woodward, A. S. 1889 D, p. 122. (Syn. of M. gigas.)

Miocene; Maryland.

Myliobatis sp. indet.

Leidy, J. 1873 B, p. 354, pl. xxxii, figs. 52, 53.

Miocene; Virginia.

MESOBATIS Leidy. Type *Aëtobatis eximius* Leidy.

Leidy, J. 1877 A, p. 244.

Woodward, A. S. 1889 D, p. 131.

Mesobatis eximius Leidy.

Leidy, J. 1855 C, p. 396. (*Aëtobatis*.)

1877 A, p. 244, pl. xxxi, fig. 12.

Woodward, A. S. 1889 D, p. 131.

Phosphate beds; South Carolina.

Ætobatus Blainville. Types *A. vulgaris*, *A. narinari*, etc.

Blainville, H. M. D., 1816, Jour. de Physique, lxxxiii, p. 261.

Most of the authors here cited spell this name *Ætobatis*.

Agassiz, L. 1843 B, iii, p. 325.

Duméril, A. 1865 A, p. 640.

Gill, T. 1894 A, p. 114.

Günther, A. 1870 A, p. 492.

1890 A, p. 345.

Hasse, C. 1882 A, p. 155, pl. xxi.

Jaekel, O. 1894 A, p. 130.

1899 A, p. 266.

Jordan and Evermann 1896 A, p. 88.

Müller and Henle 1837 A, p. 118.

1837 B, p. 401.

1841 A, p. 179.

Pictet, F. J. 1854 A, p. 281.

Quenstedt, F. A. 1852 A, p. 182.

1885 A, p. 287.

Woodward, A. S. 1889 D, p. 127.

1899 A, p. 5.

Zittel, K. A. 1890 A, p. 101.

Ætobatus arcuatus Agassiz.

Agassiz, L. 1843 B, iii, p. 327. (*Ætobatis*.)

Cope, E. D. 1867 C, p. 139. (*Ætobatis*.)

1875 V, p. 29. (*Ætobatis*.)

Leidy, J. 1877 A, p. 245, pl. xxxi, fig. 14. (*Ætobatis*.)

Woodward, A. S. 1889 D, 130. (*Ætobatis*.)

Miocene; Europe, Maryland, North Carolina.

The identification of the American specimens is doubtful.

Ætobatus perspicuus Leidy.

Leidy, J. 1855 C, p. 396. (*Ætobatis*.)

1877 A, p. 244, pl. 31, fig. 13. (*Ætobatis*.)

Woodward, A. S. 1889 D, p. 131. (*Ætobatis*.)

Eocene?; New Jersey.

Ætobatus profundus Cope.

Cope, E. D. 1867 C, p. 139. (*Ætobatis*.)

Leidy, J. 1877 A, p. 246, pl. xxxi, fig. 19. (*Ætobatis*.)

Woodward, A. S. 1889 D, p. 131. (*Ætobatis*.)

Miocene; Maryland.

PLINTHICUS Cope. Type *P. stenodon* Cope.

Cope, E. D. 1869 L, p. 316.

Woodward, A. S. 1889 D, p. 459. (Syn.? of *Ætobatus*.)

Plinthicus stenodon Cope.

Cope, E. D. 1869 L, p. 316.

1875 H, p. 362.

Woodward, A. S. 1889 D, p. 459.

Miocene; New Jersey.

RHINOPTERA Kuhl. Type *R. marginata* Cuvier.

Kuhl, 1828, in Cuvier's Règne Anim., ed. 2, p. 401.

Agassiz, L. 1843 B, iii, p. 79 (*Zygobatis*); p. 328 (*Zygobates*).

Duméril, A. 1865 A, p. 644.

Günther, A. 1880 A, p. 346.

Hasse, C. 1882 A, p. 158, pl. xxi.

Jaekel, O. 1894 A, p. 129.

Müller and Henle 1837 B, p. 401.

1841 A, p. 181.

Quenstedt, F. A. 1885 A, p. 288. (*Zygobatis*, *Rhinoptera*.)

Woodward, A. S. 1885 B, p. 270. (*Zygobatis*.)

1889 D, p. 125. (*Rhinoptera*.)

1899 A, p. 5. (*Rhinoptera* or *Zygobatis*.)

Zittel, K. A. 1890 A, p. 101. (*Zygobatis*.)

Rhinoptera dubia Leidy.

Leidy, J. 1855 C, p. 396. (*Zygobatis*.)

1877 A, p. 247, pl. xxxi, figs. 21-37.

Woodward, A. S. 1889 D, p. 127.

Phosphate beds; South Carolina.

Rhinoptera, sp. indet.

Agassiz, L. 1856 A, p. 275. (*Zygobates*.)

1857 A, p. 316, pl. i, figs. 31-35. (*Zygobates*.)

Leidy, J. 1871 C, p. 370. (*Zygobates*.)

Miocene; California.

MANTIDÆ.

Jordan and Evermann 1896 A, p. 91.

Duméril, A. 1865 A, p. 649. (*Ceraptera*.)

Gill, T. 1893 A, p. 130. (*Mobulidæ*.)

Günther, A. 1870 A, p. 435. (*Cerapterina*.)

Jaekel, O. 1894 A, pp. 115-150. (*Cerapterina*.)

1898 A, p. 51. (*Cerapterina*.)

Müller and Henle 1838 A, p. 91. (*Cephaloptera*.)

1841 A, p. 184. (*Cephaloptera*.)

MANTA Bancroft. Type *M. birostris* Walb.

Bancroft, E. N. 1829, Zool. Jour., iv, p. 444.

Duméril, A. 1865 A, p. 659. (*Ceraptera*.)

Günther, A. 1870 A, p. 497. (*Ceraptera*.)

1890 A, p. 347. (*Ceraptera*.)

Hasse, C. 1882 A, p. 159, pl. xxi. (*Ceraptera*.)

1885 A, p. 20. (*Ceraptera*.)

Jaekel, O. 1894 A. (*Ceraptera*.)

Jordan and Evermann 1896 A, p. 92. (*Manta*.)

Müller and Henle 1837 A, p. 118. (*Ceraptera*.)

1837 B, p. 401. (*Ceraptera*.)

1838 A, p. 91. (*Ceraptera*.)

1841 A, p. 184. (*Ceraptera*.)

Zittel, K. A. 1890 A, p. 102. (Ceratoptera.)

Manta unios (Leidy).

Leidy, J. 1876 E, p. 86. (Ceratoptera.)

1877 A, p. 248, pl. xxxiv, figs. 1, 2. (Ceratoptera.)

Woodward, A. S. 1889 D, p. 131. (Ceratoptera.)
Phosphate beds; South Carolina.

Subclass HOLOCEPHALA Bonaparte.¹

Bonaparte, C. L. 1832-41, Icon. Fauna Ital., iii. (Pesci), Introd. (Holocephala.)

Bridge, T. W. 1896 A, p. 534.

Cope, E. D. 1872 C.

1877 O, p. 41.

1878 A, p. 292.

1884 N, p. 579.

1884 HH.

1885 G.

1887 S, p. 324.

1889 R, p. 854.

1891 N, p. 10.

1898 B, pp. 17, 28.

Duméril, A. 1865 A, p. 663.

Gadow, H. 1898 A, p. 6.

Gadow and Abbott 1896 A.

Gegenbaur, C. 1865 B, pp. 88, 145.
1898 A.

Günther, A. 1870 A, p. 348.

1880 A, p. 348.

1891 A, p. 686.

Haeckel, E. 1896 A, p. 243.

Hasse, C. 1878 A.

1882 A, p. 25.

Hubrecht, A. A. W. 1877 A.

1878 A.

Huxley, T. H. 1872 A, p. 120.

1876 A.

Müller, J. 1835 A.

1846 C, p. 203.

Nicholson and Lydekker 1889 A, p. 949. (Chimeroid.)

Owen, R. 1860 E, p. 116.

1866 A.

Reis, O. M. 1896 A, p. 204.

1897 A, p. 65.

Stannius, H. 1854 A.

Steinmann and Döderlein 1890 A, p. 550.

Woodward, A. S. 1889 D, p. vi.

1891 A, pp. xvi, 36.

1898 B, p. 154.

Zittel, K. A. 1890 A, p. 106.

Superfamily CHIMEROIDEA.²

Cope, E. D. 1889 R, p. 854.

1891 N, p. 14.

1898 B, p. 28.

Davies, W. 1872 A.

Dean, B. 1895 A, p. 99.

Newton, E. T. 1878 C.

Woodward, A. S. 1888 I, p. 299.

1891 A, p. 36.

1898 B, p. 54.

PTYCTODONTIDÆ.

Woodward, A. S. 1891 A, p. 37.

Cope, E. D. 1891 N, p. 14.

1898 B, p. 28.

Eastman, C. R. 1898 B.

PTYCTODUS Pander. Type *P. obliquus* Pander.

Pander, C. H. 1858 A, p. 48.

Cope, E. D. 1871 D, p. 423.

1872 F, p. 339.

Eastman, C. R. 1898 B, pp. 473, 548.

Miller, S. A. 1889 A, p. 610.

Newberry and Worthen 1866 A, p. 106. (Rinodus,
type *R. calceolus*.)

1870 A, p. 374.

Rohon, J. V. 1895 A.

Steinmann and Döderlein, 1890 A, p. 50.

Woodward, A. S. 1891 A, p. 38.

1898 B, p. 55.

Zittel, K. A. 1890 A, p. 108.

Ptyctodus calceolus Newb. and Worth.

Newberry and Worthen, 1866 A, p. 106, pl. x, figs.
10-10c. (Rinodus.)

Eastman, C. R. 1898 A, p. 115, fig. 10, A.

1898 B, p. 476, figs. 1-17.

1899 B, p. 282.

Lesley, J. P. 1889 A, p. 841, figures.

Miller, S. A. 1889 A, p. 611, fig. 1170.

Newberry, J. S. 1875 A, p. 59, pl. lix, figs. 13, 13a.
(Ptyctodus.)

1889 A, p. 62. (Rhynchodus.)

Newberry and Worthen, 1870 A, p. 374.

Weller, S. 1899 A.

Whiteaves, J. F. 1892 A, p. 353.

1898 B, p. 410.

Woodward, A. S. 1891 A, p. 39.

Devonian (Hamilton); Illinois, Iowa, Mis-
souri, Manitoba.

¹ This name is by most authors spelled *Holocephali*.

² The name of this superfamily is commonly spelled *Chimeroidei*.

Ptyctodus compressus Eastman.

Eastman, C. R. 1898 B, p. 479, figs. 18-27.
Devonian (Hamilton); Wisconsin.

Ptyctodus ferox Eastman.

Eastman, C. R. 1898 B, p. 480, figs. 35-40; p. 552.
1899 B, p. 282.
Devonian (Hamilton); Wisconsin.

RHYNCHODUS Newb. Type *R. secans* Newb.

Newberry, J. S. 1873 A, pp. 307, 254, 266.

Eastman, C. R. 1900 C, p. 392.

Huene, F. 1900 A, p. 64.

Miller, S. A. 1889 A, p. 611.

Newberry, J. S. 1870 B, p. 153.

1875 A, p. 58.

1889 A, p. 45.

Nicholson and Lydekker 1889 A, p. 952. (Rhynchodes.)

Woodward, A. S. 1891 A, p. 39.

1898 B, p. 55.

Zittel, K. A. 1890 A, p. 108. (Rhynchodes.)

Rhynchodus excavatus Newb.

Newberry, J. S. 1877 A, p. 397.

Eastman, C. R. 1898 B, p. 486.

1899 B, p. 282.

Newberry, J. S. 1878 A, p. 192.

1889 A, p. 50, pl. xxix, fig. 1.

Woodward, A. S. 1891 A, p. 39.

Devonian (Hamilton); Wisconsin, Iowa.

Rhynchodus occidentalis Newb.

Newberry, J. S. 1878 A, p. 192.

Eastman, C. R. 1898 B, p. 485.

Woodward, A. S. 1891 A, p. 39.

Devonian (Hamilton); Iowa.

Rhynchodus secans Newb.

Newberry, J. S. 1873 A, p. 310, pl. xxvi figs. 1, 1a; pl. xxix, figs. 1-2a.

Eastman, C. R. 1898 B, pp. 485, 546.

Lesley, J. P. 1889 A, p. 881, figures.

1892 A, pl. clxx.

Newberry, J. S. 1889 A, p. 47, pl. xxviii, figs. 1-3.

Woodward, A. S. 1891 A, p. 39.

Devonian (Corniferous); Ohio.

Rhynchodus sp. indet.

Whiteaves, J. F. 1892 A, p. 353. (No description).

Devonian; Manitoba.

PALÆOMYLUS Woodward. Type *Rhynchodus frangens* Newb.

Woodward, A. S. 1891 A, p. 39.

Eastman, C. R. 1898 B, p. 545.

Palæomylus crassus (Newb.).

Newberry, J. S. 1873 A, p. 312, pl. xxix, fig. 3. (Rhynchodus.)

Eastman, C. R. 1898 B, p. 545.

Lesley, J. P. 1889 A, p. 879, figure. (Rhynchodus.)

1892 A, pl. cl. (Rhynchodus.)

Newberry, J. S. 1889 A, p. 49, pl. xxviii, fig. 4. (Rhynchodus.)

Woodward, A. S. 1891 A, p. 40.

Devonian (Corniferous); Ohio.

Palæomylus frangens (Newb.).

Newberry, J. S. 1873 A, p. 311, pl. xxviii, figs. 2, 2a, 3. (Rhynchodus.)

Eastman, C. R. 1898 B, p. 545.

Lesley, J. P. 1889 A, p. 880, figure. (Rhynchodus.)

1892 A, pl. clxx. (Rhynchodus.)

Miller, S. A. 1889 A, p. 611, fig. 1174. (Rhynchodus.)

Newberry, J. S. 1889 A, p. 48, pl. xxix, figs. 2, 3.

Woodward, A. S. 1891 A, p. 40.

Devonian (Corniferous); Ohio.

Palæomylus greenei (Newb.).

Newberry, J. S. 1889 A, p. 51. (Rhynchodus.)

Eastman, C. R. 1898 B, p. 546, fig. 48.

Woodward, A. S. 1891 A, p. 40.

Devonian (Hamilton); Wisconsin.

CHIMÆRIDÆ.

Agassiz, L. 1843 B, iii, p. 336. ("Chimærides.")

Brühl, B. C. 1847 A. ("Chimæren.")

Davies, W. 1872 A.

Dean, B. 1895 A.

Egerton, P. G. 1847 A.

1871 A.

Gadow and Abbott 1895 A.

Gegenbaur, C. 1865 B, p. 88.

Günther, A. 1870 A, p. 349.

1880 A, p. 348.

1881 A, p. 686.

Hubrecht, A. A. W. 1877 A.

Jordan and Evermann 1896 A, p. 93.

Köstlin, O. 1844 A, p. 417.

Newton, E. T. 1878 C.

Nicholson and Lydekker 1889 A, p. 950.

Reis, O. M. 1895 A.

Stannius, H. 1854 A. (Chimære.)

Woodward, A. S. 1891 A, p. 52.

1898 B, p. 58.

Zittel, K. A. 1890 A, p. 107.

CHIMÆRA Linn. Type *C. monstrosa* Linn.

Linnaeus, C. 1758, Syst. Nat., ed. x, p. 236.

Agassiz, L. 1843 B, iii, pp. 64, 336, 354.

1844 A.

Brühl, B. C. 1847 A.

Duméril, A. 1865 A, p. 684.

Egerton, P. G. 1847 A.

Gegenbaur, C. 1898 A.

Goette, A. 1878 A, p. 531.

Hasse, C. 1882 A, p. 25.

Howes, G. B. 1887 A, p. 22.

Hubrecht, A. A. W. 1877 A.

1878 A.

Huxley, T. H. 1872 A, p. 113

1876 A.

Kölliker, A. 1860 B.

Marsh, O. C. 1877 E.

Metschnikoff, O. 1879 A, pl. xxiv, figs. 8-12

Müller, J. 1835 A.

Owen, R. 1845 B, p. 64, pl. xxix.

1860 E, p. 116.

Parker, W. K. 1871 A, p. 194.

Reis, O. M. 1895 A.

Röse, C. 1895 A, p. 568.

Ryder, J. A. 1886 A.

Stannius, H. 1854 A.

Stephan, P. 1900 A.

Woodward, A. S. 1891 A, p. 91.

Zittel, K. A. 1890 A, p. 112.

There are no known American fossil species belonging to this genus.

EDAPHODON Buckland. Type *E. bucklandi* Agassiz.

Buckland, W., 1838, Proc. Geol. Soc., ii, p. 687.

Agassiz, L. 1843 B, iii, p. 340 (*Psittacodon*, in part); p. 350 (*Edaphodon*).

Ammon, L. 1896 A. (On *Ischyodus*.)

Cope, E. D. 1875 E, p. 283. (*Diphrissa*.)

1875 K. (*Diphrissa*, type *Ischyodus solidulus*.)

Egerton, P. G. 1847 A, p. 351.

Leidy, J. 1873 B, p. 306 (*Edaphodon*), p. 309 (*Eumylodus*, type *E. laqueatus*).

Marsh, O. C. 1870 E, p. 230. (*Dipristis*.)

Newton, E. T. 1878 C.

Nicholson and *Lydekker* 1889 A, p. 951.

Noetting, F. 1885 A, p. 1.

Owen, R. 1860 E, p. 117.

Philippi, E. 1897 A, p. 1. (On *Ischyodus*.)

Pictet, F. J. 1854 A, p. 232.

Woodward, A. S. 1888 I, p. 300.

1891 A, p. 73.

Zittel, K. A. 1890 A, p. 111 (*Edaphodon*); p. 112 (*Eumylodus*).

Edaphodon divaricatus (Cope).

Cope, E. D. 1869 L, p. 315. (*Ischyodus*.)

1875 E, pp. 284, 291. (*Ischyodus*.)

Woodward, A. S. 1891 A, p. 85.

Cretaceous; New Jersey.

Edaphodon eocænus (Cope).

Cope, E. D. 1875 E, pp. 285, 288. (*Ischyodus*.)

Woodward, A. S. 1891 A, p. 85.

Eocene; New Jersey.

Edaphodon fecundus (Cope).

Cope, E. D. 1875 E, pp. 285, 291. (*Ischyodus*.)

Woodward, A. S. 1891 A, p. 85.

Cretaceous; New Jersey.

Edaphodon gaskillii (Cope).

Cope, E. D. 1875 E, pp. 285, 290. (*Ischyodus*.)

Woodward, A. S. 1891 A, p. 85.

Cretaceous; New Jersey.

Edaphodon incrassatus (Cope).

Cope, E. D. 1875 E, pp. 285, 289. (*Ischyodus*.)

Woodward, A. S. 1891 A, p. 85.

Cretaceous; New Jersey.

Edaphodon laqueatus (Leidy).

Leidy, J. 1873 B, pp. 309, 351, pls. xix, figs. 21, 22; pl. xxxvii, figs. 13, 14. (*Eumylodus*.)

Cope, E. D. 1875 E, p. 282. (*Eumylodus*.)

Woodward, A. S. 1891 A, p. 86.

Cretaceous; Mississippi.

Edaphodon laterigerus (Cope).

Cope, E. D. 1869 F, p. 243. (*Ischyodus*.)

1875 E, pp. 284, 288. (*Ischyodus*.)

Woodward, A. S. 1891 A, p. 85.

Cretaceous; New Jersey.

Edaphodon latidens (Cope).

Cope, E. D. 1875 E, p. 283. (*Diphrissa*.)

Woodward, A. S. 1891 A, p. 86.

Cretaceous; New Jersey.

Edaphodon longirostris (Cope).

Cope, E. D. 1875 E, pp. 284, 287. (*Ischyodus*.)

Woodward, A. S. 1891 A, p. 85.

Cretaceous; New Jersey.

Edaphodon miersii (Marsh).

Marsh, O. C. 1870 E, p. 230. (*Dipristis*.)

Cope, E. D. 1875 E, pp. 285, 292. (*Ischyodus*.)

Woodward, A. S. 1891 A, p. 85.

Cretaceous; New Jersey.

Edaphodon mirificus Leidy.

Leidy, J. 1856 K, p. 221.

Cope, E. D. 1875 E, pp. 285, 291. (*Ischyodus*.)

Leidy, J. 1873 B, pp. 306, 350, pl. xxxvii, figs. 6-12

Newton, E. T. 1878 C, p. 24.

Woodward, A. S. 1891 A, p. 85.

Cretaceous; New Jersey.

Edaphodon monolophus (Cope).

Cope, E. D. 1869 L, p. 314. (*Ischyodus*.)

1875 E, pp. 285, 289. (*Ischyodus*.)

Woodward, A. S. 1891 A, p. 85.

Cretaceous; New Jersey.

Edaphodon smockii (Cope).

Cope, E. D. 1869 L, p. 316. (*Ischyodus*.)

1875 E, pp. 284, 288. (*Ischyodus*.)

Woodward, A. S. 1891 A, p. 85.

Cretaceous; New Jersey.

Edaphodon solidulus (Cope).*Cope, E. D.* 1869 F, p. 244. (Ischyodus.)

1875 E, p. 283. (Diphriosa.)

1875 K. (Diphriosa.)

Woodward, A. S. 1891 A, p. 86.

Cretaceous; New Jersey.

Edaphodon stenobryus (Cope).*Cope, E. D.* 1875 E, p. 285. (Ischyodus.)

Woodward, A. S. 1891 A, p. 86.

Cretaceous; New Jersey.

Edaphodon tripartitus (Cope).*Cope, E. D.* 1875 E, pp. 284, 286. (Ischyodus.)1869 L, p. 314. (I. mirificus, *errore*.)

Woodward, A. S. 1891 A, p. 86.

Cretaceous; New Jersey.

MYLOGNATHUS Leidy. Type *M. priscus* Leidy.*Leidy, J.* 1856 Q, p. 312.

1860 A, p. 153.

Nicholson and Lydekker 1889 A, p. 951.

Woodward, A. S. 1891 A, p. 86. (Syn. of Edaphodon.)

Mylognathus priscus Leidy.*Leidy, J.* 1856 Q, p. 312.*Cope, E. D.* 1875 E, p. 293.*Leidy, J.* 1860 A, p. 153, pl. xi, figs. 24-30.

Woodward, A. S. 1891 A, p. 86. (Edaphodon?).

Eocene (Fort Union); Nebraska.

BRYACTINUS Cope. Type *B. amorphus* Cope.*Cope, E. D.* 1875 E, p. 282.

Nicholson and Lydekker 1889 A, p. 951.

Woodward, A. S. 1891 A, p. 86. (Syn. ? of Edaphodon.)

Bryactinus amorphus Cope.*Cope, E. D.* 1875 E, p. 282, pl. xiv, fig. 12.

Woodward, A. S. 1891 A, p. 86. (Edaphodon?).

Cretaceous; New Jersey.

ISOTÆNIA Cope. Type *I. neocæsariensis* Cope.*Cope, E. D.* 1875 E, p. 293.

Nicholson and Lydekker 1889 A, p. 951.

Woodward, A. S. 1891 A, p. 86. (Syn. ? of Edaphodon.)

Isotænia neocæsariensis Cope.*Cope, E. D.* 1875 E, p. 293.

Woodward, A. S. 1891 A, p. 86. (Edaphodon?).

Cretaceous; New Jersey.

LEPTOMYLUS Cope. Type *L. densus* Cope.*Cope, E. D.* 1869 L, p. 313.

1875 E, p. 281.

Nicholson and Lydekker 1889 A, p. 951.

Woodward, A. S. 1891 A, p. 87.

Leptomylus cookii Cope.*Cope, E. D.* 1870 H, p. 384.

1875 E, p. 382.

Woodward, A. S. 1891 A, p. 87.

Cretaceous; New Jersey.

Leptomylus densus Cope.*Cope, E. D.* 1869 L, p. 313.

1875 E, p. 281.

Woodward, A. S. 1891 A, p. 86.

Cretaceous; New Jersey.

Leptomylus forfex Cope.*Cope, E. D.* 1875 E, p. 281.

Woodward, A. S. 1891 A, p. 87.

Cretaceous; New Jersey.

SPHAGEPOEA Cope. Type *S. aciculata* Cope.*Cope, E. D.* 1869 F, p. 241.

1875 E, p. 293.

Woodward, A. S. 1891 A, p. 84.

Sphagepoea aciculata Cope.*Cope, E. D.* 1869 F, p. 241.

1875 E, p. 293.

Woodward, A. S. 1891 A, p. 84.

Cretaceous; New Jersey.

DICTYORHABDUS Walcott. Type *D. priscus* Walcott.*Walcott, C. D.* 1892 A, p. 165.

Amer. Geologist, 1891 E. (Palæchimæra; no definition.)

The position of the genus is doubtful.

Dictyorhabdus priscus Walcott.*Walcott, C. D.* 1892 A, p. 165, pl. iii, figs. 1-5.

Amer. Geologist 1891 E. (Palæchimæra prisca; no description.)

Cope, E. D. 1893 I.

Dana, J. D. 1896 A, p. 609, fig. 697.

Silurian (Ordovician); Colorado.

MYLEDAPHUS Cope. Type *M. bipartitus* Cope.

Cope, E. D. 1876 H, p. 260.

Myledaphus bipartitus Cope.

Cope, E. D. 1876 H, p. 260.

1877 G, p. 574.

Cretaceous (Fort Union); Montana.

The relationships of this fossil are doubtful.

HEDRONCHUS Cope. Type *H. sternbergi* Cope.

Cope, E. D. 1876 H, p. 259.

Hedronchus sternbergi Cope.

Cope, E. D. 1876 H, p. 259.

1877 G, p. 574.

1880 Q.

Cretaceous (Ft. Union); Montana.

The relationships of this fossil are extremely problematical.

ICHTHYODORULITES.

Agassiz, L. 1843 B, III, pp. 1, 67, 69, 212.

1844 B, p. 111.

Hay, O. P. 1899 F, p. 682.

Jaekel, O. 1890 D.

Koninck, L. G. de 1878 A, p. 65.

Newberry and Worthen 1866 A, pp. 113-127.

Pictet, F. J. 1854 A, p. 229.

St. John and Worthen 1875 A, pp. 420-488.

1883 A, pp. 233-260.

Woodward, A. S. 1891 A, pp. 92-159.

Zittel, K. A. 1890 A, pp. 115-122.

ONCHUS Agassiz. Type *O. munchisoni* Agassiz.

Agassiz, L. 1843 B (1837), III, p. 6.

1843 A.

1844 A.

1844 B, p. 117.

Elchwald E. 1860 A, p. 1594.

Haase, C. 1878 A, p. 144.

1879 A, p. 59.

McCoy, F. 1855 A, p. 577.

Nicholson and Lydekker 1889 A, p. 940.

Owen, R. 1860 E, p. 100.

Pictet, F. J. 1854 A, p. 283.

Reis, O. M. 1896 A.

Rohon, V. 1893 A, p. 38, with figures.

1899 A, p. 9.

Traquair, R. H. 1899 A, p. 843.

Woodward, A. S. 1891 A, p. 94.

Zittel, K. A. 1890 A, pp. 64, 67, 166.

Onchus clintoni Clappole.

Clappole, E. W. 1885 D, p. 61, fig. 6.

1884 A, p. 1225. (No description).

1895 G.

Lesley, J. P. 1892 A, p. 774.

Woodward, A. S. 1891 A, p. 96.

Zittel, K. A. 1890 A, p. 317. (*O. clintonensis*.)

Silurian (Clinton); Pennsylvania.

Onchus pennsylvanicus Clappole.

Clappole, E. W. 1885 D, p. 61, fig. 5.

1885 A, p. 426.

1885 C.

Lesley, J. P. 1892 A, p. 774.

Upper Silurian; Pennsylvania.

Onchus rectus Eastman.

Eastman, C. R. 1899 F, p. 323, fig. 4.

Devonian (Catskill); New York.

CTENACANTHUS Agassiz. Type *C. major* Agassiz.

Agassiz, L. 1843 B (1837), III, p. 10.

1843 A.

1844 A.

1844 B, p. 119.

American Geologist 1888 A.

Barkas, W. J. 1874 A, p. 386.

1878 B, p. 145.

Clappole, E. W. 1885 B.

1895 C.

Davis, J. W. 1883 A, p. 332.

Garman, S. 1884 C.

Gill, T. 1884 C.

McCoy, F. 1855 A, p. 624.

Koninck L. G. de 1878 A, p. 65.

Miller, S. A. 1889 A, p. 593.

Newberry, J. S. 1873 A, pp. 279, 325.

1873 C, p. 27.

1889 A, p. 197.

Newberry and Worthen 1866 A, pp. 116, 118.

Nicholson and Lydekker 1889 A, pp. 940, 968.

Pictet, F. J. 1854 A, p. 299.

St. John and Worthen 1875 A, p. 432.

Thompson J. 1870 A.

1871 A.

Traquair, R. H. 1884 B.

1888 A, p. 81.

Woodward, A. S. 1884 A, p. 267.

1891 A, p. 97.

Woodward and Sherborn 1890 A, p. 49.

Zittel, K. A. 1890 A, pp. 67, 116.

Otenacanthus acutus Eastman.

Eastman, C. R. 1897 B, p. 12, fig. 2.

Subcarboniferous (Keokuk); Iowa.

Otenacanthus amblyxiphas Cope.

Cope, E. D. 1891 B, p. 449, pl. xxviii, fig. 3.

Permian; Texas.

Otenacanthus angulatus Newb. and Worth.

Newberry and Worthen 1866 A, p. 118, pl. xii, figs. 4, 4a.

Woodward, A. S. 1891 A, p. 102.

Subcarboniferous (Chester); Illinois.

Otenacanthus angustus Newb.

Newberry, J. S. 1889 A, p. 181.

Claypole, E. W. 1896 E, p. 151, figs. 1, 2.

Woodward, A. S. 1891 A, p. 102.

Devonian (Cleveland shale); Ohio.

Otenacanthus burlingtonensis St. J. and Worth.

St. John and Worthen 1875 A, p. 426, pl. xv, figs. 6, 7.

Woodward, A. S. 1891 A, p. 102.

Subcarboniferous (Burlington); Iowa, Illinois.

Otenacanthus buttersi St. J. and Worth.

St. John and Worthen 1883 A, p. 241, pl. xxvi, fig. 2.

Woodward, A. S. 1891 A, p. 102.

Coal-measures; Illinois.

Otenacanthus cannaliratus St. J. and Worth.

St. John and Worthen 1883 A, p. 239, pl. xxi, fig. 3.

Woodward, A. S. 1891 A, p. 102.

Subcarboniferous (Chester); Illinois.

Otenacanthus chemungensis Claypole.

Claypole, E. W. 1885 B, p. 490. (Inadequate description.)

Devonian (Chemung); Pennsylvania.

Otenacanthus clarkii Newb.

Newberry, J. S. 1889 A, p. 168, pl. xxvi, figs. 2, 3.

Woodward, A. S. 1891 A, p. 102.

Devonian (Cleveland shale); Ohio.

Otenacanthus compressus Newb.

Newberry, J. S. 1878 A, p. 191.

1889 A, p. 168, pl. xxiii, fig. 4.

Woodward, A. S. 1891 A, p. 103.

Devonian (Cleveland shale); Ohio.

Otenacanthus coxianus St. J. and Worth.

St. John and Worthen 1883 A, p. 233, pl. xxi, fig. 1.

Eastman, C. R. 1897 B, p. 13.

Woodward, A. S. 1891 A, p. 103.

Subcarboniferous (Keokuk); Iowa.

Otenacanthus cylindricus Newb.

Newberry, J. S. 1889 A, p. 202, pl. xxxvi, fig. 1.

Eastman, C. R. 1897 B, p. 13.

Woodward, A. S. 1891 A, p. 103.

Subcarboniferous (Keokuk); Kentucky.

Otenacanthus deflexus St. J. and Worth.

St. John and Worthen 1883 A, p. 234 pl. xxii, fig. 1.

Woodward, A. S. 1891 A, p. 103.

Subcarboniferous (St. Louis); Illinois.

Otenacanthus depressus Newb.

Newberry, J. S. 1897 A, p. 290, pl. xxii, fig. 6.

Subcarboniferous (Kinderhook); Iowa.

Otenacanthus elegans Tuomey.

Tuomey, M. 1858 A, p. 38, text-fig. A.

Woodward, A. S. 1891 A, p. 103.

Subcarboniferous; Alabama.

Otenacanthus excavatus St. J. and Worth.

St. John and Worthen 1875 A, p. 428, pl. xv, figs. 4, 5.

Eastman, C. R. 1897 B, p. 13.

Keyes, C. R. 1894 A, p. 236.

Woodward, A. S. 1891 A, p. 103.

Subcarboniferous (Keokuk); Missouri, Iowa.

Otenacanthus? fallax Woodward.

Woodward, A. S. 1891 A, p. 105. (Ex Ledy MS. "Indeterminate.")

Ledy J. 1857 G, pl. v, fig. 30. (No name or description).

Subcarboniferous; ———.

Otenacanthus formosus Newb.

Newberry, J. S. 1873 A, p. 328, pl. 36, figs. 2-2b.

1875 A, p. 53, pl. lix, figs. 1-1e.

Woodward, A. S. 1891 A, p. 103.

Subcarboniferous (Waverly); Ohio, Kentucky.

Otenacanthus furcicarinatus Newb.

Newberry, J. S. 1875 A, p. 54, pl. lix, figs. 2-2c.

Koninck, L. G. de 1878, A, p. 68.

Newberry, J. S. 1873 A, p. 279. (No description; teeth=? *Orodus variabilis*.)

Woodward, A. S. 1891 A, p. 103.

Subcarboniferous (Waverly); Kentucky.

Otenacanthus gemmatus St. J. and Worth.

St. John and Worthen 1875 A, p. 429, pl. xv, figs. 9, 10.

Woodward, A. S. 1891 A, p. 103.

Subcarboniferous (St. Louis); Illinois.

Otenacanthus gradocostatus St. J. and Worth.

St. John and Worthen 1875 A, p. 426, pl. xv, figs. 2, 3.

Woodward, A. S. 1891 A, p. 103.

Subcarboniferous (Burlington); Illinois, Iowa.

Otenacanthus gurleyi Newb.

Newberry, J. S. 1897 A, p. 290.

Subcarboniferous (St. Louis); Indiana.

Otenacanthus harrisoni St. J. and Worth.*St. John and Worthen* 1883 A, p. 236, pl. xxiii, fig. 1.

Woodward, A. S. 1891 A, p. 108.

Subcarboniferous (St. Louis); Illinois.

Otenacanthus keokuk St. J. and Worth.*St. John and Worthen* 1875 A, p. 427, pl. xv, fig. 8.

Eastman, C. R. 1897 B, p. 13.

Keyes, C. R. 1894 A, p. 236.

Woodward, A. S. 1891 A, p. 103.

Subcarboniferous (Keokuk); Missouri, Illinois, Iowa.

Otenacanthus littoni Newb.*Newberry, J. S.* 1889 A, p. 201, pl. xxv, fig. 3.

Woodward, A. S. 1891 A, p. 103.

Subcarboniferous (St. Louis); Missouri.

Otenacanthus marshii Newb.*Newberry, J. S.* 1873 A, p. 326, pl. xxvi, figs. 3, 3b.

Woodward, A. S. 1891 A, p. 104.

Coal-measures; Ohio.

Otenacanthus mayi Newb. and Worth.*Newberry and Worthen* 1870 A, p. 372, pl. ii, figs. 2, 2a; also p. 346.

Woodward, A. S. 1891 A, p. 104.

Subcarboniferous (Burlington); Iowa.

Otenacanthus pellensis St. J. and Worth.*St. John and Worthen* 1883 A, p. 237, pl. xxi, fig. 2.

Woodward, A. S. 1891 A, p. 104.

Subcarboniferous (St. Louis); Iowa.

Otenacanthus pugiunculus St. J. and Worth.*St. John and Worthen* 1875 A, p. 430, pl. xxi, fig. 9.

Keyes, C. R. 1894 A, p. 236.

Newberry, J. S. 1897 A, p. 298, pl. xxii, fig. 4. (Oracanthus.)

Woodward, A. S. 1891 A, p. 104.

Subcarboniferous (St. Louis); Missouri, Illinois.

Otenacanthus randalli Newb.*Newberry, J. S.* 1889 A, p. 106.

Woodward, A. S. 1891 A, p. 104.

Devonian (Chemung); Pennsylvania.

Otenacanthus sculptus St. J. and Worth.*St. John and Worthen* 1875 A, p. 421, pl. xiv, fig. 1.**Anaclitacanthus** St. J. and Worth.*St. John and Worthen* 1875 A, p. 442.

Miller, S. A. 1889 A, p. 587.

Anaclitacanthus semicostatus St. J. and Worth.*St. John and Worthen* 1875 A, p. 443, pl. xvi, fig. 14.

Woodward, A. S. 1891 A, p. 104.

Subcarboniferous (Kinderhook); Iowa.

Otenacanthus similis St. J. and Worth.*St. John and Worthen* 1875 A, p. 431, pl. xv, figs. 11-11d.

Woodward, A. S. 1891 A, p. 104.

Subcarboniferous (Chester); Illinois.

Otenacanthus speciosus St. J. and Worth.*St. John and Worthen* 1875 A, p. 424, pl. xiv, figs. 3, 4.

Davis, J. W. 1883 A, p. 340.

Woodward, A. S. 1891 A, p. 104.

Subcarboniferous (Kinderhook); Iowa.

Otenacanthus spectabilis St. J. and Worth.*St. John and Worthen* 1875 A, p. 420, pl. xv, figs. 1-1c.

Woodward, A. S. 1891 A, p. 104.

Subcarboniferous (Kinderhook); Iowa.

Otenacanthus triangularis Newb.*Newberry, J. S.* 1873 A, p. 329, pl. 36, figs. 1-1b.

Miller, S. A. 1889 A, p. 593, fig. 1118.

Trautschold, H. 1879 B, p. 61, pl. vii, fig. 15.

Woodward, A. S. 1891 A, p. 104.

Subcarboniferous (Waverly); Ohio; also in Russia.

Otenacanthus varians St. J. and Worth.*St. John and Worthen* 1875 A, p. 422, pl. xiv, fig. 12.

Woodward, A. S. 1891 A, p. 104.

Subcarboniferous (Kinderhook); Iowa.

Otenacanthus vetustus Newb.*Newberry, J. S.* 1873 A, p. 326, pl. xxxv, figs. 3-3d.

Claypole, E. W. 1885 B, p. 489.

Woodward, A. S. 1891 A, p. 101.

Devonian (Huron shale); Ohio.

Otenacanthus wrighti Newb.*Newberry, J. S.* 1884 B, p. 206, pl. xvi, figs. 12-14.

1889 A, p. 66, pl. xxvi, fig. 4.

Woodward, A. S. 1891 A, p. 104.

Devonian (Hamilton); New York.

Otenacanthus xiphias (St. J. and Worth.).*St. John and Worthen* 1883 A, p. 244, pl. xxvi, fig. 1. (Acondylacanthus.)

Eastman, C. R. 1897 B, p. 10, fig. 1.

Woodward, A. S. 1891 A, p. 110. (Acondylacanthus.)

Subcarboniferous (Keokuk); Iowa.

Type A. semicostatus St. J. and Worth.

Woodward, A. S. 1891 A, p. 106.

Subcarboniferous (Burlington); Iowa.

EUNEMACANTHUS St. J. and Worth. Type *E. costatus* (Newb. and Worth.).*St. John and Worthen* 1883 A, p. 246.

Miller, S. A. 1889 A, p. 597.

Eunemacanthus costatus (Newb. and Worth.).*Newberry and Worthen* 1866 A, p. 120, pl. xii, fig. 5.
(*Ctenacanthus?* *costatus*.)

Hambach, G. 1890 A, p. 80.

St. John and Worthen 1883 A, p. 246, pl. xxiii, fig. 2.

Woodward, A. S. 1891 A, p. 106.

Subcarboniferous (St. Louis); Illinois, Missouri (*vide* Hambach).HOMACANTHUS Agassiz. Type *H. arcuatus* Agassiz.*Agassiz, L.* 1844 B, p. 113.*Newberry and Worthen* 1866 A, p. 113.

Nicholson and Lydekker 1889 A, p. 968.

Owen, R. 1860 E, p. 101.

Pictet, F. J. 1854 A, p. 288.

Woodward, A. S. 1891 A, p. 106.

Homacanthus gracilis Whiteaves.*Whiteaves, J. W.* 1889 A, p. 96, pl. x, fig. 4.

McCoy, F. 1855 A, p. 632.

Traquair, R. H. 1890 A, p. 21. (*Climacius*.)Whiteaves, J. F. 1881 E, p. 106. (*H. sp. undet.*)1883 A, p. 355. (*H. sp.?*)1883 B, p. 164. (*H. sp. undet.*)

Woodward, A. S. 1891 A, p. 106.

Lower Devonian; New Brunswick.

AMACANTHUS St. J. and Worth. Type *A. gibbosus* (Newb. and Worth.).*St. John and Worthen* 1875 A, p. 464.

Miller, S. A. 1889 A, p. 587.

Amacanthus gibbosus (Newb. and Worth.).*Newberry and Worthen* 1866 A, p. 113, pl. xii, fig. 1.
(*Homacanthus*.)

Keyes, C. R. 1894 A, p. 237.

Miller, S. A. 1889 A, p. 587.

St. John and Worthen 1875 A, p. 464, pl. xxii, fig. 6.

Woodward, A. S. 1891 A, p. 106.

Subcarboniferous (St. Louis); Missouri, Illinois.

MARRACANTHUS St. J. and Worth. Type *M. rectus* (Newb. and Worth.).*St. John and Worthen* 1875 A, p. 465.

Keyes, C. R. 1894 A, p. 237.

Miller, S. A. 1889 A, p. 601.

Marracanthus rectus (Newb. and Worth.).*Newberry and Worthen* 1866 A, p. 115, pl. xii, fig. 6.
(*Homacanthus?*)

Miller, S. A. 1889 A, p. 602, fig. 1147.

St. John and Worthen 1875 A, p. 466, pl. xxii, figs. 7-9.

Woodward, A. S. 1891 A, p. 106.

Subcarboniferous (St. Louis); Missouri, Illinois.

HOPLONCHUS J. W. Davis. Type *H. elegans* J. W. Davis.*Davis, J. W.* 1876, Quart. Jour. Geol. Soc., xxxii, p. 336.

1879, Quart. Jour. Geol. Soc., xxxv, p. 181.

Newberry, J. S. 1889 A, p. 169.

Woodward, A. S. 1891 A, p. 107.

Hoplonchus parvulus Newb.*Newberry, J. S.* 1875 A, p. 56, pl. lix, fig. 3.
(*Ctenacanthus*.)

1889 A, p. 169, pl. xxv, fig. 5.

Woodward, A. S. 1891 A, p. 107.

Devonian (Cleveland shale); Ohio.

ACONDYLACANTHUS St. J. and Worth. Type *A. gracilis* St. J. and Worth.*St. John and Worthen* 1875 A, p. 432.

Davis, J. W. 1883 A, p. 346.

Miller, S. A. 1889 A, p. 586.

Woodward, A. S. 1886 E, p. 4.

1891 A, p. 107.

Woodward and Sherborn 1890 A, p. 4.

Zittel, K. A. 1890 A, p. 117.

Acondylacanthus æquicostatus St. J. and Worth.*St. John and Worthen* 1875 A, p. 434, pl. xvi, figs. 12, 13.

Woodward, A. S. 1891 A, p. 109.

Subcarboniferous (Keokuk); Iowa.

Acondylacanthus gracilis St. J. and Worth.*St. John and Worthen* 1875 A, p. 433, pl. xvi, figs. 8-11.

Miller, S. A. 1889 A, p. 586, fig. 1099.

Woodward, A. S. 1891 A, p. 109.

Subcarboniferous (Kinderhook); Iowa.

Acondylacanthus gracillimus (Newb. and Worth.).*Newberry and Worthen* 1866 A, p. 126, pl. xiii, fig. 3. (*Ctenacanthus*.)Keyes, C. R. 1894 A, p. 236. (*Ctenacanthus*.)

Newberry, J. S. 1889 A, p. 206, pl. xxv, fig. 6. (A. occidentalis.)

Newberry and Worthen 1866 A, p. 116, pl. xii, fig. 2. (Leptacanthus? occidentalis.)

St. John and Worthen 1875 A, p. 435. (A. occidentalis.)

1883 A, p. 238, pl. xxiv, fig. 1. (Ctenacanthus.)

Woodward, A. S. 1891 A, p. 109. (A. occidentalis.)
Subcarboniferous (St. Louis); Missouri, Illinois, Michigan.

Acondylacanthus? mudgianus St. J. and Worth.

St. John and Worthen, 1883 A, p. 244, pl. xxiv, fig. 3.

ASTEROPTYCHIUS McCoy.

McCoy, F. 1848 A, p. 118.

Agassiz, L. 1843 B, iii, p. 176. (Name only).
1844 A.

McCoy, F. 1855 A, p. 615.

Miller, S. A. 1889 A, p. 588.

Newberry, J. S. 1889 A, p. 186.

Woodward, A. S. 1891 A, p. 110.

Zittel, K. A. 1890 A, p. 117.

Asteroptychius bellulus St. J. and Worth.

St. John and Worthen 1875 A, p. 439, pl. xvi, fig. 7.
Woodward, A. S. 1891 A, p. 111.

Coal-measures: Illinois, Iowa.

Asteroptychius elegans Newb.

Newberry, J. S. 1889 A, p. 176, pl. xxv, fig. 4.

Woodward, A. S. 1891 A, p. 111.

Subcarboniferous (Waverly); Michigan.

Asteroptychius gracilis Newb.

Newberry, J. S. 1897 A, p. 293.

Subcarboniferous (St. Louis); Illinois.

Asteroptychius keokuk St. J. and Worth.

St. John and Worthen 1875 A, p. 436, pl. xvi, fig. 2.
Woodward, A. S. 1891 A, p. 111.

Subcarboniferous (Keokuk); Illinois.

Asteroptychius sancti-ludovici St. J. and Worth.

St. John and Worthen 1875 A, p. 437, pl. xvi, figs. 3, 4.

COSMACANTHUS Agassiz. Type *C. malcolmsoni* Agassiz.

Agassiz, L. 1844 B, p. 120.

Miller, S. A. 1889 A, p. 598. (Gelsacanthus.)

Pictet, F. J. 1854 A, p. 287.

St. John and Worthen 1875 A, p. 440. (Gelsacanthus, type *G. stellatus*.)

Woodward, A. S. 1891 A, p. 111.

Woodward and Sherborn 1890 A, p. 47.

Zittel, K. A. 1890 A, p. 117.

Cosmacanthus bullatus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 441, pl. xvii, figs. 3, 4. (Gelsacanthus.)

Woodward, A. S. 1891 A, p. 110.

Coal-measures; Kansas.

Acondylacanthus nuperus St. J. and Worth.

St. John and Worthen 1883 A, p. 242, pl. xxvi, fig. 3.

Woodward, A. S. 1891 A, p. 110.

Coal-measures; Illinois.

Acondylacanthus rectus St. J. and Worth.

St. John and Worthen 1883 A, p. 241, pl. xxvi, fig. 2.

Woodward, A. S. 1891 A, p. 109.

Coal-measures; Illinois.

Type *A. ornatus* McCoy.

Keyes, C. R. 1894 A, p. 236.

Woodward, A. S. 1891 A, p. 111.

Subcarboniferous (St. Louis); Illinois, Missouri.

Asteroptychius tenellus St. J. and Worth.

St. John and Worthen 1883 A, p. 248, pl. xxi, fig. 4.

Woodward, A. S. 1891 A, p. 111.

Coal-measures; Kansas.

Asteroptychius? tenuis St. J. and Worth.

St. John and Worthen 1875 A, p. 438, pl. xvi, figs. 5, 6.

Woodward, A. S. 1891 A, p. 111.

Subcarboniferous (Chester); Illinois.

Asteroptychius triangularis Newb. and Worth.

Newberry and Worthen 1870 A, p. 370, pl. ii, fig. 4.

Woodward, A. S. 1891 A, p. 111.

Subcarboniferous (Burlington); Iowa.

Asteroptychius vetustus St. J. and Worth.

St. John and Worthen 1875 A, p. 435, pl. xvi, fig. 1.

Woodward, A. S. 1891 A, p. 111.

Subcarboniferous (Kinderhook); Iowa.

Woodward, A. S. 1891 A, p. 112.

Subcarboniferous (Chester); Illinois.

Cosmacanthus stellatus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 440, pl. xxi, fig. 10. (Gelsacanthus.)

Keyes, C. R. 1894 A, p. 236. (Gelsacanthus.)

Woodward, A. S. 1891 A, p. 113.

Subcarboniferous (St. Louis); Missouri.

BYTHIACANTHUS St. J. and Worth. Type *B. vanhornei* St. J. and Worth.

St. John and Worthen 1875 A, p. 444.

Miller, S. A. 1889 A, p. 589.

Newberry, J. S. 1889 A, p. 186.

Bythiacanthus ? siderius (Leidy).

Leidy, J. 1870 H, p. 13. (*Asteracanthus*.) 1873 B, pp. 313, 353, pl. xxxii, fig. 59. (*Asteracanthus*.)

St. John and Worthen 1875 A, p. 445.

Woodward, A. S. 1889 D, p. 320.

1891 A, p. 113.

Subcarboniferous; Tennessee.

Bythiacanthus vanhornei St. J. and Worth.

St. John and Worthen 1875 A, p. 445, pl. xvii, fig. 1.

Woodward, A. S. 1891 A, p. 113.

Subcarboniferous (St. Louis); Illinois.

GLYMMATACANTHUS St. J. and Worth. Type *G. irishii* St. J. and Worth.

St. John and Worthen 1875 A, p. 446.

Miller, S. A. 1889 A, p. 598.

Newberry, J. S. 1889 A, p. 186.

Glymmatacanthus irishii St. J. and Worth.

St. John and Worthen 1875 A, p. 447, pl. xvii, fig. 2.

Miller, S. A. 1890 A, p. 598, fig. 1183.

Woodward, A. S. 1891 A, p. 113.

Subcarboniferous (Kinderhook); Iowa.

Glymmatacanthus petrodoides St. J. and Worth.

St. John and Worthen 1883 A, p. 250, pl. xxv, fig. 2.

Woodward, A. S. 1891 A, p. 113.

Subcarboniferous (Chester); Illinois.

Glymmatacanthus rudis St. J. and Worth.

St. John and Worthen 1883 A, p. 249, pl. xxv, fig. 1.

Woodward, A. S. 1891 A, p. 113.

Subcarboniferous (Keokuk); Iowa.

APATEACANTHUS Woodward. Type *A. vetustus* (Clarke).

Woodward, A. S. 1891 A, p. 118.

Apateacanthus vetustus (Clarke, J. M.).

Clarke, J. M. 1885 A, p. 42, pl. i, fig. 7. (*Pristacanthus*.)

Lesley, J. P., 1889 A, p. 744, figure. (*Pristacanthus*.)

Newberry, J. S. 1889 A, p. 61.

Woodward, A. S. 1891 A, p. 119.

Devonian (Genesee); New York.

CÆLORHYNCHUS Agassiz. Type *C. rectus* Agassiz.

Agassiz, L. 1843 B, v. p. 92.

1844 A.

Cope, E. D. 1890 A.

Gibbes, R. W. 1850 A.

Leidy, J. 1856 A, p. 422. (*Cylindracanthus*.)

1856 E, p. 12. (*Cylindracanthus*; type *C. ornatus*.)

Marsh, O. C. 1870 E, p. 228.

Reis, O. M. 1896 C, p. 182.

Williamson, W. C. 1849 A, p. 471, pl. xliii, figs. 35-37.

Woodward, A. S. 1888 G.

1891 A, p. 120.

Zittel, K. A. 1890 A, pp. 122, 258.

This genus probably belongs to the *Sclerodermi*.

Cœlorhynchus acus Cope.

Cope, E. D. 1870 F, p. 294.

Eocene; New Jersey.

Cœlorhynchus ornatus Leidy.

Leidy, J. 1856 E, p. 12. (*Cylindracanthus*.)

1856 A, p. 422. (*Cylindracanthus*.)

1856 O, p. 302. (*Cœlorhynchus*.)

Woodward, A. S. 1891 A, p. 122.

Eocene; Alabama.

MACHÆRACANTHUS Newb. Type *M. peracutus* Newb.

Newberry, J. S. 1857 C, p. 125.

Fritsch, A. 1895 A (1893), p. 72.

Hopkins, W., 1855 A. (No name.)

Jaekel, O. 1893 B, p. 175.

Miller, S. A. 1889 A, p. 601.

Newberry, J. S. 1857 A, p. 148.

1862 A, p. 76, fig. 2.

1873 A, pp. 264, 302.

1873 C, p. 27.

1875 A, p. 57.

1889 A, p. 37.

Nicholson and Lydekker 1889 A, p. 947.

Reis, O. M. 1896 A.

Roualt, M. 1858 A, p. 102. (*Machærius*, preoccupied.)

Traquair, R. H. 1893 B, p. 177.

Woodward, A. S. 1891 A, p. 123.

Zittel, K. A. 1890 A, p. 116.

Machæracanthus major Newb.

Newberry, J. S. 1857 C, p. 125.

Lesley, J. P. 1892 A, pl. cl.

Newberry, J. S. 1873, A, pp. 262, 304, pl. xxv, fig. 2.
1889 A, p. 39, pl. xxix, fig. 4.
Woodward, A. S. 1891 A, p. 124.
Zittel, K. A. 1890 A, p. 116, fig. 124.
Devonian (Corniferous); Ohio.

Machaeracanthus peracutus Newb.

Newberry, J. S. 1857 C, p. 125.
Hopkins, W. 1854 A. (No name).
Miller, S. A. 1889 A, p. 601, fig. 1145.
Newberry, J. S. 1862 A, fig. 2.
1873 A, p. 306, pl. xxix, fig. 6.
1889 A, p. 40, pl. xxix, fig. 6.
Woodward, A. S. 1891 A, p. 124.
Devonian (Corniferous); Ohio.

Machaeracanthus sulcatus Newb.

Newberry, J. S. 1857 C, p. 126.
Hall, J. 1843 A, p. 174, fig. 69. ("Ichthyodorn-
lites.")
Jaekel, O. 1893 B, p. 175.
Lankester, E. R. 1870 A, fig. 3.
Lennox, T. H. 1886 A, p. 120.
Lesley, J. P. 1889 A, p. 296, figure. ("Ichthyodorn-
lites.")
Newberry, J. S. 1873 A, pp. 264, 305.
1889 A, p. 40, pl. xxix, fig. 4.
Woodward, A. S. 1891 A, p. 124.
Devonian (Corniferous); Ohio.

GAMPHACANTHUS S. A. Miller. Type *H. politus* Newb.

Miller, S. A. 1892 A, p. 715.
Hay, O. P. 1899 E, p. 791.
Newberry, J. S. 1889 A, p. 65. (Heteracanthus,
type *H. politus*; preoccupied.)
Woodward, A. S. 1891 A, p. 125. (Heteracanthus.)
Gamphacanthus politus (Newb.).
Newberry, J. S. 1889 A, p. 66, pl. xxi, figs. 4, 5.
(Heteracanthus.)
Eastman, C. R. 1898 B, p. 552. (Heteracanthus.)
1899 B, p. 282. (Heteracanthus.)

Miller, S. A. 1892 A, p. 715.
Woodward, A. S. 1891 A, p. 125. (Heteracanthus.)
Devonian (Hamilton); Wisconsin.

Gamphacanthus uddeni (Lindahl).

Lindahl, J. 1897 A, p. 96, pl. vi. (Heteracanthus.)
Eastman, C. R. 1898 B, p. 557. (Heteracanthus.)
1899 B, pp. 278, 282. (Heteracanthus.)
Devonian (Hamilton); Iowa, Wisconsin, Illi-
nois.

ACANTHASPIS Newb. Type *A. armatus* Newb.

Newberry, J. S. 1875 A, p. 36.
Jaekel, O. 1893 B, p. 175.
Miller, S. A. 1889 A, p. 586.
Newberry, J. S. 1870 B, p. 153.
1889 A, p. 35.
Traquair, R. H. 1893 A, p. 149.
1893 D, p. 117.
1894 B, p. 370.
Woodward, A. S. 1891 A, p. 128.
1892 C, p. 482.
1892 F, fig. 8.

Woodward, A. S. 1898 B, p. 16.
Zittel, K. A. 1890 A, p. 157.

Acanthaspis armata Newb.

Newberry, J. S. 1875 A, p. 37, pl. iv, figs. 1-6.
Claypole, E. W. 1896 B, p. 354.
Miller, S. A. 1889 A, p. 586, fig. 1097.
Newberry, J. S. 1889 A, p. 36, pl. xxxi; figs. 1-4.
Traquair, R. H. 1894 B, p. 370.
Woodward, A. S. 1891 A, p. 129.
Devonian (Corniferous); Ohio.

ECZEMATOLEPIS S. A. Miller. Type *Acantholepis pustulosus* (Newb.).

Miller, S. A. 1892 A, p. 715.
Hay, O. P. 1899 E, p. 791.
Jaekel, O. 1893 B, p. 175. (Acantholepis.)
Miller, S. A. 1889 A, p. 586. (Acantholepis.)
Newberry, J. S. 1875 A, p. 38. (Acantholepis, type
A. pustulosus; preoccupied.)
1889 A, p. 33. (Acantholepis.)
Woodward, A. S. 1891 A, p. 128. (Acantholepis.)
Zittel, K. A. 1890 A, p. 157. (Acantholepis.)

Eczematolepis fragilis (Newb.).

Newberry, J. S. 1857 C, p. 126. (Oracanthus
fragilis, O. *granulatus*, O. *abbreviatus*.)

Eastman, C. R. 1899 B, p. 283. (Acantholepis.)
Miller, S. A. 1889 A, p. 586, fig. 1098. (Acantho-
lepis.)
1892 A, p. 715. (Eczematolepis.)
Newberry, J. S. 1875 A, p. 38, pl. lvi, figs. 1-6.
(Acantholepis *pustulosus*.)
1875 A, p. 39. (Oracanthus *fragilis*, *granu-
latus*, *abbreviatus*.)
1889 A, p. 34, pl. xxxi, figs. 5-5b. (Acan-
tholepis *pustulosus*.)
Woodward, A. S. 1891 A, p. 129. (Acantholepis
pustulosus.)
Devonian (Corniferous); Ohio, New York.

PHLYCTENACANTHUS Eastman. Type *P. telleri* Eastman.

Eastman, C. R. 1898 B, p. 552.

Phlyctenacanthus telleri Eastman.

Eastman, C. R. 1898 B, p. 551, fig. 49.
1899 B, p. 283.
Devonian (Hamilton); Wisconsin, Iowa.

STETHACANTHUS Newb. Type *S. altonensis* (St. J. and Worth.).

Newberry, J. S. 1889 A, p. 198.
 Miller, S. A. 1892 A, p. 717.
 Woodward, A. S. 1891 A, p. 129.

Stethacanthus altonensis (St. J. and Worth.).

St. John and Worthen 1875 A, p. 454, pl. xix, figs. 1-3. (Physonemus.)
 Lesley, J. P. 1889 A, p. 641, figures. (Physonemus.) 1890 A, p. 1062.
 Newberry, J. S. 1889 A, p. 198, pl. xxiv, figs. 1-3. 1890 A, p. 133.
 Woodward, A. S. 1891 A, p. 129.
 Subcarboniferous (St. Louis); Illinois.

Stethacanthus compressus Newb.

Newberry, J. S. 1897 A, p. 292, pl. xxiii, figs. 3, 4.
 Subcarboniferous (Burlington); Iowa.

Stethacanthus productus Newb.

Newberry, J. S. 1897 A, p. 291, pl. xxiii, figs. 1, 2.
 Subcarboniferous (Burlington); Iowa.

Stethacanthus tumidus Newb.

Newberry, J. S. 1889 A, pp. 198, 200, pl. xxv, figs. 1, 2.
 Lesley, J. P. 1890 A, p. 1063.
 Woodward, A. S. 1891 A, p. 129.
 Devonian (Cleveland shale); Ohio, Pennsylvania?

PHYSONEMUS McCoy. Type *P. arcuatus* McCoy.

McCoy, F. 1848 A, p. 117.
 Davis, J. W. 1883 A, p. 368.
 McCoy, F. 1855 A, p. 638.
 Miller, S. A. 1889 A, p. 606.
 Newberry, J. S. 1889 A, p. 195. 1890 A, p. 133.
 Pictet, F. J. 1854 A, p. 291.
 St. John and Worthen 1875 A, p. 448.
 Woodward, A. S. 1891 A, p. 130.
 Zittel, K. A. 1890 A, p. 118.

Physonemus carinatus St. J. and Worth.

St. John and Worthen 1875 A, p. 452, pl. xviii, figs. 4, 5.
 Woodward, A. S. 1891 A, p. 131.
 Subcarboniferous (Kinderhook); Iowa.

Physonemus chesterensis St. J. and Worth.

St. John and Worthen 1875 A, p. 455, pl. xix, fig. 4.
 Lesley, J. P. 1889 A, p. 642, figure.
 Woodward, A. S. 1891 A, p. 131.
 Subcarboniferous (Chester); Illinois.

Physonemus depressus St. J. and Worth.

St. John and Worthen 1875 A, p. 452, pl. xviii, fig. 3.
 Lesley, J. P. 1889 A, p. 642, figures.
 Woodward, A. S. 1891 A, p. 131.
 Subcarboniferous (Kinderhook); Iowa.

Physonemus falcatus St. J. and Worth.

St. John and Worthen 1883 A, p. 252, pl. xxiv, fig. 6.
 Keyes, C. R. 1894 A, p. 237.

XYSTRACANTHUS Leidy.

Leidy, J. 1859 C, p. 3.
 Koninck, L. G. de 1878 A, p. 75. (Drepanacanthus.)
 Jaekel, O. 1899 A, p. 285.
 Lohest, M. 1884 A, p. 319.
 Miller, S. A. 1889 A, p. 596 (Drepanacanthus); p. 614 (Xystracanthus).
 Newberry, J. S. 1889 A, p. 195. (Drepanacanthus.)
 Newberry and Worthen 1866 A, p. 120. (Drepanacanthus; type *D. anceps*, Newb. and Worth.)

Type *X. arcuatus* Leidy.

St. John and Worthen 1875 A, p. 457.
 Trautschold, H. 1874 B, p. 297. (Drepanacanthus.)

Xystracanthus acinaciformis St. J. and Worth.

St. John and Worthen 1875 A, p. 459, pl. xx, fig. 2.
 Lesley, J. P. 1890 A, p. 1262, figure.
 Woodward, A. S. 1891 A, p. 131. (Physonemus.)
 Coal-measures; Illinois.

Xystracanthus anceps (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 122, pl. xii, fig. 8. (Drepanacanthus.)

Lesley, J. P. 1890 A, p. 1262, figure.

St. John and Worthen 1875 A, p. 458. (Xystracanthus.)

Woodward, A. S. 1891 A, p. 131. (Physonemus.) Coal-measures; Illinois.

Xystracanthus arcuatus Leidy.

Leidy, J. 1859 C, p. 3.

1873 B, pp. 312, 353, pl. xvii, fig. 25.

St. John and Worthen 1875 A, p. 457.

Woodward, A. S. 1891 A, p. 131. (Physonemus.) Coal Measures; Kansas.

Xystracanthus gemmatus (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 123, pl. xiii, fig. 1. (Drepanacanthus.)

BATACANTHUS *St. John and Worthen.*

St. John and Worthen 1875 A, p. 468.

Miller, S. A. 1889 A, p. 588.

Woodward, A. S. 1891 A, p. 132.

Batacanthus baculiformis St. J. and Worth.

St. John and Worthen 1875 A, p. 469, pl. xxi, figs. 4-8.

Keyes, C. R. 1894 A, p. 238.

Woodward, A. S. 1891 A, p. 133.

Subcarboniferous (Keokuk); Iowa, Missouri, Illinois.

Batacanthus ? necis St. J. and Worth.

St. John and Worthen 1883 A, p. 253, pl. xxv, fig. 4.

ORACANTHUS Agassiz.

Agassiz, L. 1843 B (1837), III, p. 13.

1844 A.

American Geologist 1888 A.

Davis, J. W. 1883 A, p. 525 (Oracanthus); p. 533 (Phoderacanthus).

Leidy, J. 1856 S, p. 161.

McCoy, F. 1855 A, p. 634.

Miller, S. A. 1889 A, p. 603 (Oracanthus); p. 607 (Pnigeacanthus).

Newberry, J. S. 1889 A, p. 34. 1890 A.

1897 A, p. 285.

Newberry and Worthen 1866 A, p. 122.

Nicholson and Lydekker 1889 A, p. 947.

Pictet, F. J. 1854 A, p. 284.

St. John and Worthen 1875 A, p. 480. (Pnigeacanthus; type *Oracanthus pnigeus*.)

Traquair, R. H. 1888 A, p. 85.

Woodward, A. S. 1891 A, p. 135.

Zittel, K. A. 1890 A, p. 162.

Oracanthus lineatus Newb.

Newberry, J. S. 1897 A, p. 290.

Subcarboniferous (St. Louis); Indiana.

Woodward, A. S. 1891 A, p. 132. (Physonemus.) Subcarboniferous (Keokuk); Iowa.

Xystracanthus mirabilis St. J. and Worth.

St. John and Worthen 1875 A, p. 458, pl. xx, fig. 1. *Lesley, J. P.* 1890 A, p. 1264, figure.

1895 A, pl. dlxxii.

Woodward, A. S. 1891 A, p. 132. (Physonemus.) Coal-measures; Illinois.

Xystracanthus reversus (St. J. and Worth.).

St. John and Worthen 1875 A, p. 456, pl. xix, figs. 5, 6. (Drepanacanthus.)

Keyes, C. R. 1894 A, p. 237. (Drepanacanthus.)

St. John and Worthen 1883 A, p. 253, pl. xxiv, fig. 5. (Drepanacanthus.)

Woodward, A. S. 1891 A, p. 132. (Physonemus.) Subcarboniferous (St. Louis); Illinois, Missouri.

Type *B. baculiformis* St. J. and Worth.

Woodward, A. S. 1891 A, p. 133.

Subcarboniferous (Keokuk); Iowa.

Batacanthus stellatus (Newb. and Worth.).

Newberry and Worthen 1866 A, p. 125, pl. xii, fig. 7. (Drepanacanthus?)

Hambach, G. 1890 A, p. 80.

St. John and Worthen 1875 A, p. 470, pl. xxi, figs. 1-3.

Woodward, A. S. 1891 A, p. 133.

Subcarboniferous (Keokuk); Illinois, Missouri (*vide Hambach*).

Type *O. milleri* Agassiz.**Oracanthus multiseriatus** Newb.

Newberry, J. S. 1857 C, p. 126.

Miller, S. A. 1889 A, p. 608.

Subcarboniferous; Ohio.

Oracanthus ? obliquus St. J. and Worth.

St. John and Worthen 1875 A, p. 477, pl. xxii, fig. 16.

Lesley, J. P. 1889 A, p. 501, figures.

Woodward, A. S. 1891 A, p. 139.

Subcarboniferous (Keokuk); Illinois.

Oracanthus pnigeus Newb. and Worth.

Newberry and Worthen 1866 A, p. 117, pl. xii, fig. 3.

Lesley, J. P. 1889 A, p. 724, fig.

Miller, S. A. 1889 A, p. 607. (Pnigeacanthus.)

Newberry, J. S. 1897 A, p. 286.

St. John and Worthen 1875 A, p. 480. (Pnigeacanthus deltoides.)

1883 A, p. 260. (Pnigeacanthus pnigeus.)

Woodward, A. S. 1891 A, p. 138.

Subcarboniferous (Keokuk); Iowa.

Oracanthus rectus St. J. and Worth.*St. John and Worthen* 1883 A, p. 257, pl. xxv, fig. 3.

Lesley, J. P. 1889 A, p. 501, figs.

Woodward, A. S. 1891 A, p. 139.

Subcarboniferous (Chester); Illinois.

Oracanthus trigonalis (St. J. and Worth.).*St. John and Worthen* 1883 A, p. 259, pl. xxiv, fig. 4. (Pnigeacanthus.)

Woodward, A. S. 1891 A, p. 139.

Subcarboniferous (St. Louis); Illinois.

Oracanthus vetustus Leidy.

Leidy, J. 1855 D.

GYRACANTHUS Agassiz. Type *G. formosus* Agassiz.*Agassiz, L.* 1843 B (1837), iii, p. 17.

1844 A.

Barkas, T. P. 1873 A, p. 15.

Hasse, C. 1879 A, p. 60.

Jaekel, O. 1890 D, p. 123.

McCoy, F. 1855 A, p. 629.

Miller, S. A. 1889 A, p. 598.

Newberry, J. S. 1873 A, pp. 281, 330.

1875 A, p. 57.

1889 A, p. 186.

Pictet, F. J. 1854 A, p. 284.

Reis, O. M. 1896 A.

Thompson, J. 1868 A, p. 130.

Traquair, R. H. 1884 C.

1889 B.

Ward, J. 1890 A, p. 150.

Woodward, A. S. 1885 B, p. 272.

1891 A, p. 139.

Woodward and Sherborn 1890 A, p. 88.

Gyracanthus alleni Newb.*Newberry, J. S.* 1873 A, p. 331, pl. xxxvii, figs. 3-3d.

Claypole, E. W. 1885 B, p. 490.

Miller, S. A. 1889 A, p. 598, fig. 1134.

Traquair, R. H. 1884 C, p. 41.

Woodward, A. S. 1891 A, p. 144.

Subcarboniferous (Waverly); Ohio.

Gyracanthus compressus Newb.*Newberry, J. S.* 1873 A, p. 330, pl. xxxvii, figs. 1-2b.

Woodward, A. S. 1891 A, p. 144.

Subcarboniferous (Waverly); Ohio, Indiana.

Gyracanthus? cordatus St. J. and Worth.*St. John and Worthen* 1883 A, p. 251, pl. xxvi, fig. 4.ERISMACANTHUS McCoy. Type *E. jonesii* McCoy.*McCoy, F.* 1848 A, p. 118.

Davis, J. W. 1883 A, p. 364. (Cladacanthus.)

McCoy, F. 1855 A, p. 628.

Miller, S. A. 1889 A, p. 597.

Pictet, F. J. 1854 A, p. 292.

Woodward, A. S. 1886 E, p. 4.

1889 E, p. 130.

1891 A, p. 146.

Zittel, K. A. 1890 A, p. 118.

Keyes, C. R. 1894 A, p. 238.

Leidy, J. 1856 S, p. 161, pl. 16, figs. 1-3.

Lesley, J. P. 1889 A, p. 501, figs.

1895 A, pl. ccxxix.

Newberry, J. S. 1890 A.

1897 A, p. 245, pl. xxii, fig. 3.

St. John and Worthen 1875 A, p. 476, pl. xxii, fig.

15. (O. consimilis.)

1875 A, p. 479.

1883 A, p. 255, pl. xxiv, fig. 2.

Woodward, A. S. 1891 A, p. 139.

Carboniferous; Missouri Territory: Subcarboniferous (St. Louis); Illinois, Missouri.

Woodward, A. S. 1891 A, p. 145.

Subcarboniferous (Keokuk); Iowa.

Gyracanthus duplicatus Dawson.*Dawson, J. W.* 1868 A, p. 210, fig. 55.

1878 A, p. 210, fig. 55.

Lesley, J. P. 1895 A, pl. dlxx.

Newberry, J. S. 1889 A, p. 124.

Traquair, R. H. 1884 C, p. 41.

Woodward, A. S. 1891 A, p. 144.

Coal-measures; Nova Scotia.

Gyracanthus incurvus Traquair.*Traquair, R. H.* 1890 A, p. 21.

Woodward, A. S. 1891 A, p. 144.

1892 A, p. 2, pl. 1, figs. 4, 5.

Devonian; Province of Quebec.

Gyracanthus inornatus Newb.*Newberry, J. S.* 1889 A, p. 177, pl. xxiii, fig. 5.

Woodward, A. S. 1891 A, p. 145.

Subcarboniferous (Waverly); Ohio.

Gyracanthus magnificus Dawson.*Dawson, J. W.* 1868 A, p. 210, fig. 55a.

1878 A, p. 210, fig. 55a.

Lesley, J. P. 1895 A, pl. dlxx.

Newberry, J. S. 1875 A, p. 57.

1889 A, p. 124.

Woodward, A. S. 1891 A, p. 145.

Subcarboniferous; Cape Breton.

Gyracanthus sherwoodi Newb.*Newberry, J. S.* 1889 A, p. 119, pl. xviii, fig. 4.

Woodward, A. S. 1891 A, p. 145.

Devonian; Pennsylvania.

Erismacanthus maccoyanus St. J. and Worth.*St. John and Worthen* 1875 A, p. 461, pl. xxii, figs. 1-5.

Keyes, C. R. 1894 A, p. 237.

Woodward, A. S. 1891 A, p. 147.

Subcarboniferous (St. Louis); Missouri, Illinois.

GAMPSACANTHUS St. J. and Worth. Type *G. typus* St. J. and Worth.*St. John and Worthen* 1875 A, p. 470.

Davis, J. W. 1883 A, p. 363.

Miller, S. A. 1889 A, p. 598.

Woodward, A. S. 1891 A, p. 148.

Zittel, K. A. 1890 A, p. 118.

Gampsacanthus? latus St. J. and Worth.*St. John and Worthen* 1875 A, p. 474, pl. xxii, fig. 14.

Keyes, C. R. 1894 A, p. 238.

Woodward, A. S. 1891 A, p. 148.

Subcarboniferous (Keokuk); Missouri.

Gampsacanthus squamosus St. J. and Worth.*St. John and Worthen* 1875 A, p. 473, pl. xxii, fig. 13.

Keyes, C. R. 1894 A, p. 238.

Woodward, A. S. 1891 A, p. 148.

Subcarboniferous (St. Louis); Missouri.

Gampsacanthus typus St. J. and Worth.*St. John and Worthen* 1875 A, p. 472, pl. xxii, fig. 12.

Keyes, C. R. 1894 A, p. 238.

Lesley, J. P. 1895 A, pl. ccxxix.

Miller, S. A. 1889 A, p. 598, fig. 1132.

Woodward, A. S. 1891 A, p. 148.

Zittel, K. A. 1890-A, p. 118, fig. 129.

Subcarboniferous (St. Louis); Missouri, Illinois.

LECRACANTHUS St. J. and Worth. Type *L. unguiculus* St. J. and Worth.*St. John and Worthen* 1875 A, p. 475.

Miller, S. A. 1889 A, p. 600.

Woodward, A. S. 1891 A, p. 148.

Lecracanthus unguiculus St. J. and Worth.*St. John and Worthen* 1875 A, p. 476, pl. xxii, figs. 10, 11.

Keyes, C. R. 1894 A, p. 238.

Woodward, A. S. 1891 A, p. 148.

Subcarboniferous (St. Louis); Missouri, Illinois.

LISTRACANTHUS Newb. and Worth. Type *L. hystrix* Newb. and Worth.*Newberry and Worthen* 1870 A, p. 371.

Koninck, L. G. de 1878 A, p. 75.

Miller, S. A. 1889 A, p. 601.

Newberry, J. S. 1873 A, p. 336.

Woodward, A. S. 1891 A, p. 148.

Listracanthus hildrethi Newb.*Newberry, J. S.* 1875 A, p. 56, pl. lix, fig. 6.

Woodward, A. S. 1891 A, p. 149.

Coal-measures; Ohio.

Listracanthus hystrix Newb. and Worth.*Newberry and Worthen* 1870 A, p. 372, pl. ii, figs. 3, 3a

Cope, E. D. 1894 F, p. 433.

Hambach, G. 1890 A, p. 81.

Koninck, L. G. de 1878 A, p. 75, pl. v, fig. 11.

Miller, S. A. 1889 A, p. 601, fig. 1144.

Newberry, J. S. 1873 A, p. 337.

1875 A, p. 56, pl. lix, fig. 5.

Woodward, A. S. 1891 A, p. 148.

Coal-measures; Illinois, Ohio, Missouri (*Adelambach*). Also reported from Belgium.**CYRTACANTHUS** Newb. Type *C. dentatus* Newb.*Newberry, J. S.* 1873 A, p. 306.

Miller, S. A. 1889 A, p. 594.

Woodward, A. S. 1891 A, p. 150.

Cyrtacanthus dentatus Newb.*Newberry, J. S.* 1873 A, p. 307, pl. xxix, fig. 5.

Miller, S. A. 1889 A, p. 594, fig. 1122.

Newberry, J. S. 1889 A, p. 28. (*Cladacanthus*.)

Woodward, A. S. 1891 A, p. 150.

Devonian (Corniferous); Ohio.

HARPACANTHUS Traquair. Type *Tristychius fimbriatus* Stock.*Traquair, R. H.* 1886 A, p. 493.

Newberry, J. S. 1889 A, p. 203.

Stock, T. 1882 A. ("Kammplatten.")

1882 B. (*Tristychius*.)1883 A. (*Tristychius*.)*Traquair, R. H.* 1888 A, p. 83. (*Tristychius*.)

Woodward, A. S. 1884 A, p. 268.

1891 A, p. 150.

Harpacanthus fimbriatus (Stock).*Stock, T.* 1883 A, p. 177. (*Tristychius*.)

Newberry, J. S. 1889 A, p. 203, pl. xxi, fig. 11.

Traquair, R. H. 1886 A, p. 493, figs. 1, 2.

Woodward, A. S. 1891 A, p. 150, fig. 11.

Subcarboniferous (St. Louis); Illinois. Also in Scotland.

EDESTUS Leidy. Type *E. vorax* Leidy.*Leidy, J.* 1855 D.

Agassiz, L., in Hitchcock, E. 1856 B.

Cope, E. D. 1870 L, p. 535.

1872 F, p. 339.

1875 E, p. 244c.

1890 H.

Dean, B. 1896 D, p. 61.

Eastman, C. R. 1898 B, p. 554.

Hitchcock, E. 1856 B.

Hitchcock, Fanny R. 1887 A.

1888 A.

Jaekel, O. 1899 A, p. 297 (*Edestus*); p. 298 (family *Edestidae*).

1900 A, p. 144.

Leidy, J. 1856 O, p. 301.

1856 S, p. 157.

Lealey, J. P. 1889 A, *Errata*, p. xxi.

Miller, S. A. 1889 A, p. 597.

Newberry, J. S. 1868 A, p. 145

1873 A, p. 286.

1884 A.

1885 A.

1888 B.

1899 A, p. 217.

Newberry and Worthen 1866 A, p. 84.

1870 A, p. 350.

Nicholson and Lydekker 1889 A, p. 947.

Trautschold, H. 1888 A.

1886 A.

1888 A, p. 750.

1890 A.

Woodward, A. S. 1888 A.

1891 A, p. 151.

Woodward, H. 1886 A.

Zittel, K. A. 1890 A, p. 119.

Edestus giganteus Newb.*Newberry, J. S.* 1888 B, p. 121, pl. vi, fig. 1.

Dana, J. D. 1896 A, p. 681, fig. 1106.

1888 A.

Dean, B. 1897 B, p. 64, pl. v, fig. 3.

Newberry, J. S. 1889 A, p. 225, pl. xli, fig. 1.

Woodward, A. S. 1888 A.

1891 A, p. 153.

Coal-measures; Illinois.

Edestus heinrichsii Newb. and Worth.*Newberry and Worthen* 1870 A, p. 350, pl. i, fig. 1.

Dean, B. 1897 B, p. 64, pl. v, fig. 2.

Eastman, C. R. 1898 B, p. 554.

Kindle, E. M. 1898 A, p. 484.

Newberry, J. S. 1879 A, p. 347.

1888 B, pl. v, figs. 2, 2a, 2b.

1889 A, p. 215.

Woodward, A. S. 1891 A, p. 152.

Woodward, H. 1886 A, p. 3.

Coal-measures; Illinois, Indiana.

Edestus lecontei Dean.

Dean, B. 1897 B, p. 62, pl. iv; pl. v, fig. 6.

Jaekel, O. 1900 A, p. 147.

Carboniferous; Nevada.

Edestus minor Newb.*Newberry, J. S.*, in Newberry and Worthen 1866 A, p. 84, pl. iv, fig. 24.

Dana, J. D. 1896 A, p. 681, fig. 1107.

Dean, B. 1897 B, p. 64, pl. v, fig. 4.

Hitchcock, E. 1856 B, text figure. (No name.)

Kindle, E. M. 1898 A, p. 484.

Lealey, J. P. 1889 A, p. 214, figure. (*E. vorax*.)

Newberry, J. S. 1879 A, p. 348.

1888 B, pl. v, fig. 1.

1889 A, p. 215.

Newberry and Worthen 1870 A, p. 350, pl. i, fig. 2 (*E. vorax*, by error.)

Trautschold, H. 1888 A, p. 753.

Woodward, A. S. 1891 A, p. 153, fig. 12.

Zittel, K. A. 1890 A, p. 119. (*E. vorax*.)

Coal-measures; Indiana.

Edestus vorax Leidy.*Leidy, J.* 1855 D.

Dean, B. 1897 B, p. 63.

Leidy, J. 1856 O, p. 301.

1856 S, p. 159, pl. xv.

1870 H, p. 13.

Lealey, J. P. 1896 A, pl. ccxxix.

Miller, S. A. 1889 A, p. 597, fig. 1129.

Newberry, J. S. 1868 A, p. 145.

1879 A, p. 347.

1888 B, pl. iv, fig. 2.

1889, A, p. 218.

Woodward, A. S. 1891 A, p. 154.

Woodward, H. 1886 A, p. 3.

Coal-measures; Arkansas.

EUCTENIUS Traquair. Type *E. unilateralis* (Barkas).

Traquair, R. H., 1881, Geol. Magazine (2), viii, pp. 36, 384.

Barkas, T. P. 1881 A. (*Ctenoptychius*.)

Fritsch, A. 1883 A (1890), i, pl. xx. ("Kammlplatten.")

Stock, T. 1881 A. ("Kammlplatten.")

1882 A.

Ward, J. 1890 A, p. 152.

Woodward, A. S. 1891 A, p. 155.

Euctenius sp. indet.

Newberry, J. S. 1889 A, p. 228.

Woodward, A. S. 1891 A, p. 156.

Coal-measures; Ohio.

OESTOPHORUS S. A. Miller. Type *Sphenophorus lilleyi* Newb.

Miller, S. A. 1892 A, p. 716.

Newberry, J. S. 1889 A, p. 91. (*Sphenophorus*, type *S. lilleyi*; preoccupied.)**Oestophorus lilleyi** (Newb.).*Newberry, J. S.* 1889 A, p. 92. (*Sphenophorus*.)

Hay, O. P. 1899 E, p. 791.

Lesley, J. P. 1890 A, p. 977. (*Sphenophorus*)
 Miller, S. A. 1892 A, p. 716.
 Woodward, A. S. 1891 A, p. 157. (*Sphenophorus*)
 Devonian (Chemung); Pennsylvania.

Oestophorus n. sp. Eastman.

Eastman, C. R. 1899 B, p. 287. (*Sphenophorus*
 n. sp.; no description.)
 Devonian; Iowa.

CALLOGNATHUS Newb. Type *C. regularis* Newb.

Newberry, J. S. 1889 A, p. 69.
 Miller, S. A. 1892 A, p. 714.

Callognathus regularis Newb.

Newberry, J. S. 1889 A, p. 70, pl. xxvii, fig. 18.
 Woodward, A. S. 1891 A, p. 157.
 Devonian (Cleveland shale); Ohio.

Callognathus serratus Newb.

Newberry, J. S. 1889 A, p. 70, pl. xxvii, figs. 16, 17.
 Woodward, A. S. 1891 A, p. 157.
 Devonian (Cleveland shale); Ohio.

PROSPIRAXIS Williams. Type *Spiraxis major* Newb.

Williams, H. S. 1887 A, p. 86.
 Cope, E. D. 1896 B, p. 159. (*Spiraxis*.)
 Hollick, A. 1894 A, p. 118. (*Spiraxis*.)
 Newberry, J. S. 1886 C, p. 219. (*Spiraxis*, not of
 Adams, 1850.)
 Stainier, X. 1894 A. (*Spiraxis*.)

Prospiraxis major (Newb.).

Newberry, J. S. 1886 C, p. 219, pl. xviii, fig. 1.
 (*Spiraxis*.)
 Cope, E. D. 1896 B, p. 159. (*Spiraxis*.)
 Lesley, J. P. 1890 A, p. 994, figures. (*Spiraxis*.)

Williams, H. S. 1887 A, p. 86. (*Spiraxis* ?.)
 Devonian (Chemung); Ohio, New York?

Prospiraxis randallii (Newb.).

Newberry, J. S. 1886 C, p. 220, pl. xviii, figs. 2, 3.
 (*Spiraxis*.)
 Cope, E. D. 1896 B, p. 159. (*Spiraxis*.)
 Lesley, J. P. 1890 A, p. 995. (*Spiraxis*.)
 Williams, H. S. 1887 A, p. 86. (*Spiraxis* ?.)
 Devonian (Chemung); Pennsylvania New
 York ?

Class PISCES Linnæus.

Linnæus, C., 1758, Syst. Nat., ed. x, p. 239.
 Agassiz, L. 1843 B.

1844 A.
 1845 A.

Baudelot, E. 1873 A.
 1873 B.

Bridge, W. J. 1879 A.
 1896 A.

Cope, E. D. 1872 C.
 1877 O.
 1878 A.
 1886 G.
 1889 R.
 1890 B.
 1891 N.
 1898 B.

Dean, B. 1895 A.
 Gadow, H. 1898 A, p. 7. (*Teleostomi*.)
 Gegenbaur, C. 1898 A.
 Gill, T. 1861 A. (*Teleostei*, *Ganoidel*.)
 1872 C.
 1873 B.
 1873 D.

1893 A. (*Teleostomes*.)
 1896 C, p. 912.

Grassi, B. 1883 A.
 Günther, A. 1880 A.
 1881 A.

Haeckel, E. 1895 A, p. 244 (*Ganoides*); p. 247 (*Os-*
teodermi); p. 252 (*Teleostei*); p. 257 (*Dipneusta*).

Harrison, R. G. 1894 A. (*Teleostei*.)
 Hertwig, O. 1876 A.

1881 A.

Hubrecht, A. A. W. 1878 A.

Humphrey, J. 1866 A.

Huxley, T. 1870 A, p. 440.
 1876 A.

Jordan, D. S. 1891 A.

Jordan and Evermann, 1896 A.
 1898 A.

Nicholson and Lydekker 1889 A.
 Owen, R. 1847 B.

1866 A.
 Parker, W. K. 1874 A.
 1882 A.

Pictet, F. J. 1854 A, p. 37. ("Teleostiens.")

Pollard, H. B. 1894 B. ("Fishes.")

Röse, C. 1894 B. ("Fishes.")

Ryder, J. 1879 B.

1885 A.
 1889 B.
 1892 A.

Stannius, H. 1854 A.

Steinmann and Döderlein 1890 A, p. 561. (*Eulich-*
thyes.)

Woodward, A. S. 1891 A.
 1895 A.

Zittel, K. A. 1890 A.

The term *Pisces* is employed here in much
 the same sense in which it was used originally
 by Linnæus; that is, to designate the fish-like
 animals, exclusive of the sharks and rays and
 the lampreys. There are furthermore included
 certain fossil groups and the Dipnoi, not known
 to Linnæus. The authors cited above use the
 term in various senses, and some employ other
 terms to designate this group.

Subclass ASPIDOGANOIDEI Gill.

- Gill, T. 1876, Johnson's Univ. Cyclop., iv, p. 185.
 Cope, E. D. 1889 R, p. 852. (Ostracodermi, pre-occupied.)
 1891 G. (Ostracophori.)
 1891 N, p. 8. (Ostracophori.)
 1898 B, p. 15. (Ostracophori.)
 Dean, B. 1895 A. (Ostracodermi.)
 Gadow, H. 1896 A, p. 4. (Hypostomata.)
 Gill, T. 1896 C, p. 912. (Aspidoganoidei.)
 Hay, O. P. 1899 F, p. 682.
 Jaekel, O. 1896 B, p. 127. (Ostracodermi.)
 Patten, W. 1890 A. (Ostracodermi.)

- Rohon, J. V. 1892 C, p. 86. (Protocephali.)
 1894 A, p. 52. (Protocephali.)
 1896 B, p. 16. (Protocephali.)
 1896 A. (Genus Thyestes.)
 1896 B, p. 16. (Protocephali.)
 Traquair, R. H. 1900 A, p. 158. (Ostracodermi.)
 1900 B, p. 467. (Ostracodermi.)
 Woodward, A. S. 1891 A, pp. xvi, 159. (Ostracodermi.)
 1892 F, p. 599.
 1896 B, p. 3. (Ostracodermi.)
 1900 D. (Ostracodermi.)

Order HETEROSTRACI Lankester.

- Powrie and Lankester 1868 A, pp. 5, 14.
 Cope, E. D. 1891 N, p. 9.
 1898 B, p. 15.
 Gadow, H. 1896 A, p. 4.
 Rohon, J. V. 1896 B, p. 16. (Aspidorhini.)
 1896 A. (Genus Thyestes.)
 1896 B. (Aspidorhini.)

- Traquair, R. H. 1899 A, p. 858.
 1900 B, p. 467.
 Woodward, A. S. 1891 A, pp. xix, 159.
 1896 B, p. 3.
 1900 D.
 Zittel, K. A. 1890 A, p. 144.

PTERASPIDÆ.

- Claypole, E. W. 1885 D, p. 56.
 1885 C, p. 734.
 1892 D, p. 542.
 Cope, E. D. 1887 O, p. 1015.
 Dean, B. 1895 A, figures.
 Jaekel, O. 1896 B, p. 128.
 Nicholson and Lydekker 1889 A, p. 960.
 Patton, W. 1890 A.
 Reis, O. M. 1896 A, pp. 212, 213.
 Rohon, J. V. 1892 C.
 1894 A.

- Rohon, J. V. 1896 B.
 1897 A.
 1899 B, p. 9.
 Schmidt, F. 1873 C. ("Pteraspiden.")
 Steinmann and Döderlein 1890 A, p. 553.
 Traquair, R. H. 1899 A, p. 849.
 Woodward, A. S. 1887 A.
 1891 A, p. 159.
 1892 F.
 Zittel, K. A. 1890 A, p. 144.

PTERASPIS Kner. Type *Cephalaspis Lloydii* Agassiz, = *P. rostrata* Agassiz.

- Kner, R. 1847 A, p. 165.
 Agassiz, L. 1843 B, II, p. 135. (Cephalaspis, in part.)
 Alth, A. 1874 A, p. 41.
 1886 A.
 Claypole, E. W. 1884 A. (Pteraspis, Scaphaspis.)
 1885 A.
 Collinge, W. E. 1893 A, p. 2.
 Eichwald, E. 1871 A, p. 1, pl. i. (Palæoteuthis, type *P. marginalis*.)
 Huxley, T. H. 1868 A.
 1869 A.
 1861 A.
 1861 B, p. 88.
 1872 A, p. 128.
 Jaekel, O. 1892 A, p. 90.
 Kunth, A. 1872 A.
 Lankester, E. R. 1862 A.
 1864 A.
 1864 B.
 1865 A. (Pteraspis, Scaphaspis.)
 1873 A.
 1873 B. (Scaphaspis, Pteraspis.)
 1874 A.

- Mitchell, H. 1862 A.
 1864 A.
 Nicholson and Lydekker 1889 A, p. 960.
 Owen, R. 1860 E, p. 122.
 Powrie, J. 1864 A.
 Powrie and Lankester 1868 A. (Pteraspis and Scaphaspis.)
 Roemer, F. 1856 A. (Palæoteuthis.)
 Rohon, J. V. 1892 C.
 1896 B.
 Ryder, J. A. 1890 A, p. 491.
 Salter, J. W. 1867 A.
 Schmidt, F. 1866 A, p. 217.
 1873 A.
 1873 B.
 1873 C.
 Traquair, R. H. 1899 A, p. 850.
 1900 B, p. 466.
 Woodward, A. S. 1887 A.
 1891 A, p. 160.
 1892 F, figs. 1, 9.
 Zittel, K. A. 1890 A, p. 147.
 No American species of this genus are known.

CYATHASPIDIS Lankester. Type *C. banksi* Huxley and Salter.

Lankester, R. 1865 A, p. 100.

Alth, A. 1874 A, p. 45.
1886 A.

Claypole, E. W. 1892 D.

Geinitz, H. B. 1884 A, p. 854.

Jaekel, O. 1892 A, p. 90.

Kunth, A. 1872 A.

Lankester, E. R. 1873 B.

Lindström, G. 1896 A.

Matthew, G. F. 1887 B, p. 73. (Diplaspia.)

1888 A, p. 49. (Diplaspia.)

Miller, S. A. 1889 A, p. 596. (Diplaspia.)

Powrie and Lankester 1868 A, p. 26.

Rohon, J. V. 1896 B, p. 18.

Schmidt, F. 1873 A.

1873 C.

Traquair, R. H. 1900 B, p. 467.

Woodward, A. S. 1891 A, p. 170.

1892 F, fig. 2.

Zittel, K. A. 1890 A, p. 148.

Cyathaspis acadica (Matthew).

Matthew, G. F. 1886 A. (Pteraspis?)

American Geologist 1891 B, p. 329. (Diplaspia.)

Matthew, G. F. 1887 A.

1887 B, p. 69. (Diplaspia.)

1888 A, p. 49, pl. iv, figs. 1-4. (Diplaspia.)

1891 A. (Diplaspia.)

Miller, S. A. 1889 A, p. 596. (Diplaspia.)

Rohon, J. V. 1896 B, p. 19.

Woodward, A. S. 1891 A, p. 173.

Upper Silurian; New Brunswick.

PALÆASPIDIS Claypole. Type *P. americana* Claypole.

Claypole, E. W. 1884 A, p. 1224.

1885 A, p. 426.

1885 C.

1885 D, pp. 50, 62.

1892 D.

Collinge, W. E. 1893 A, p. 3.

Lankester, E. R. 1873 A, p. 242. (Holaspis, pre-occupied.)

1873 C.

Lealey, J. P. 1892 A, p. 775.

Miller, S. A. 1889 A, p. 604.

Traquair, R. H. 1900 B, p. 467.

Woodward, A. S. 1891 A, p. 169.

1896 B, p. 435.

Zittel, K. A. 1890 A, p. 148. (Holaspis.)

Palæaspis americana Claypole.

Claypole, E. W. 1884 A, p. 1224.

1884 A, p. 1224. (P. bitruncata.)

1885 A, p. 426. (P. bitruncata.)

Claypole, E. W. 1884 A, p. 1224.

1885 D, p. 62, fig. 7 (P. americana); fig. 8 (P. bitruncata).

1892 D, p. 561, fig. 8.

1893 C.

Dean, B. 1896 A, p. 71.

Lealey, J. P. 1899 A, p. 575, figures. (P. americana, P. bitruncata.)

Matthew, G. F. 1888 A, p. 54.

Rohon, J. V. 1896 B, p. 21.

Traquair, R. H. 1899 A, p. 853.

Woodward, A. S. 1891 A, p. 170.

Zittel, K. A. 1890 A, p. 317.

Devonian (Onondaga); Pennsylvania.

Palæaspis elliptica Claypole.

Claypole, E. W. 1885 C.

1885 A, p. 426.

Upper Silurian; Pennsylvania.

Order OSTEOSTRACI Lankester.

Powrie and Lankester, 1868 A, p. 14.

Cope, E. D. 1891 N, p. 9.

1898 B, p. 15.

Gadow, H. 1896 A, p. 4.

Powrie and Lankester, 1870 A, p. 33.

Rohon, J. V. 1892 C, p. 86.

1896 B, p. 16. (Aspidocephali.)

1894 A, p. 51. (Aspidocephali.)

1894 B. (Tremataspidae.)

Rohon, J. V. 1892 C, p. 86.

1896 A. (Genus Thyestes.)

1896 B, p. 21. (Aspidocephali.)

Schmidt, F. 1894 A. (Genus Thyestes.)

Traquair, R. H. 1899 A, p. 857.

1900 B, p. 467.

Woodward, A. S. 1891 A, pp. xix, 176.

1896 B, p. 8.

CEPHALASPIDÆ.

Huxley, T. H. 1861 B, p. 38.

Agassiz, L. 1843 A, p. 86. ("Céphalaspides.")

1844 B, p. 4. ("Céphalaspides.")

1846 A, p. 37. ("Céphalaspides.")

Cope, E. D. 1886 D.

1887 O, p. 1015.

Dean, B. 1896 A.

Haeckel, E. 1895 A, p. 236. (Cephalaspidæ.s.)

Huxley, T. H. 1872 A, p. 123.

Jaekel, O. 1892 A, p. 90.

1896 B, p. 123.

Newberry, J. S. 1873 A, p. 256.

Nicholson and Lydekker, 1889 A, pp. 959, 961.

Pictet, F. J. 1854 A, p. 218. ("Céphalaspides.")

Pollard, H. B. 1895 A, p. 419.

Powrie and Lankester, 1868 A.

1870 A.

Rohon, J. V. 1892 C.

1896 B, p. 23.

Schmidt, F. 1866 A.

1873 C.

Steinmann and Döderlein, 1890 A, p. 553.

Woodward, A. S. 1890 B, p. 316.

1891 A, p. 176.

1896 B, p. 8.

Zittel, K. A. 1890 A, p. 143.

CEPHALASPIS Agassiz. Type *C. lyelli* Agassiz.*Agassiz*, L. 1843 B (1835), II, p. 158.

1843 A.

1844 A.

1844 B. (*Pterichthys*.)

Alth., A. 1874 A.

1886 A.

Claypole, E. W. 1885 C.

1885 D.

1892 D, p. 556.

Cope, E. D. 1886 D.

1888 U.

Huxley, T. H. 1866 A.

1869 A.

1861 B, p. 38.

1872 A, p. 128.

Jaekel, O. 1892 A, p. 90.

Kunth, A. 1872 A.

Miller, H. 1869 A, p. 50, pls. x, xiii.

Miller, S. A. 1889 A, p. 589.

Newberry, J. S. 1856 A.

Nicholson and Lydekker, 1889 A, p. 961.

Owen, R. 1860 E, p. 122.

Pander, C. H. 1856 A.

Pictet, F. J. 1864 A, p. 219.

Powrie, J. 1861 A.

Powrie and Lankester, 1868 A.

1870 A.

Quenstedt, F. A. 1886 A, p. 363.

Rohon, J. V. 1892 C.

1896 B, p. 23.

Schmidt, F. 1866 A.

Traquair, R. H. 1867 A.

1899 A, p. 857.

1900 B, p. 467.

Woodward, A. S. 1891 A, p. 177.

1892 A, figs. 5, 10.

1898 B, p. 9.

1900 D.

Zittel, K. A. 1890 A, p. 149.

Cephalaspis campbelltonensis Whiteaves.

Whiteaves, J. F. 1881 E, p. 98

Claypole, E. W. 1884 A, p. 1223.

Miller, S. A. 1892 A, p. 714.

Rohon, J. V. 1896 B, p. 25.

Traquair, R. H. 1890 A, p. 21. (*C. campbelltonensis*; *C. whiteavesi*.)

1893 A, p. 146.

1893 D, p. 113.

Whiteaves, J. F. 1883 A, p. 355.

1883 B, p. 164.

1889 A, p. 92, pl. x, fig. 2.

Woodward, A. S. 1891 A, p. 190, pl. ix, fig. 5.

1892 A, p. 4, pl. i, fig. 6.

Lower Devonian; New Brunswick.

Cephalaspis dawsoni Lankester.

Lankester, E. R. 1870 A, p. 397, figs. 1, 2.

Claypole, E. W. 1884 A, p. 1223.

Rohon, J. V. 1896 B, p. 25.

Whiteaves, J. F. 1881 E, p. 99.

1883 B, p. 164.

1899 A, p. 410.

Woodward, A. S. 1891 A, p. 192, fig. 26.

Lower Devonian; Gaspé, Canada.

Cephalaspis jexi Traquair.

Traquair, R. H. 1893 A, p. 147.

Rohon, J. V. 1896 B, p. 25.

Traquair, R. H. 1893 D, p. 114.

Upper Devonian; Scaumenac Bay, Canada.

Cephalaspis laticeps Traquair.

Traquair, R. H. 1890 A, p. 16.

Miller, S. A. 1892 A, p. 714.

Rohon, J. V. 1896 B, p. 25.

Whiteaves, J. F. 1899 A, p. 412.

Woodward, A. S. 1891 A, p. 192.

Upper Devonian; Scaumenac Bay, Canada.

EUPHANEROPIDÆ

Woodward, A. S. 1900 B, p. 418.

EUPHANEROPS Woodward. Type *E. longævus* Woodward.

Woodward, A. S. 1900 B, p. 416.

Euphanerops longævus Woodward.

Woodward, A. S. 1900 B, p. 416, pl. x, figs. 1-1b.

Devonian; Quebec.

Subclass AZYGOSTEI, nom. nov.

Gill, T., 1876, Johnson's Cyclopaedia, iv, p. 185.
(Dipnoi.)

Superorder PLACODERMI McCoy.

- McCoy, F. 1848 A, p. 6.
 Cope, E. D. 1886 D, p. 1081. (Placoganoides, Placodermi.)
 1887 O, p. 1019.
 1899 R, p. 856.
 Dames, W. 1885 A.
 Dean, B. 1891 A.
 Egerton, P. G. 1848 B.
 Günther, A., 1890 A, p. 351.
 1881 A, p. 686.
 Hay, O. P. 1899 F, p. 682.
 Haeckel, E. 1895 A, pp. 236, 248.
 Huxley, T. H. 1872 A, p. 129.
 Jaekel, O. 1896 B, p. 128.
 Koenen, A. 1883 A.
 1896 A.

- Lütken, C. 1873 A, p. 41.
 Marsh, O. C. 1877 E.
 McCoy, F. 1848 B.
 1855 A, p. 598. (Placodermata.)
 Newberry, J. S. 1873 A, p. 257.
 1875 A, p. 8.
 Nicholson and Lydekker 1889 A, 962.
 Owen, R. 1860 E, p. 118.
 Pander, C. H. 1857 A.
 Rohon, J. V. 1892 A, p. 32.
 1899 A, p. 16.
 1899 B, p. 10.
 Steinmann and Döderlein 1890 A, p. 551.
 Zittel, K. A. 1890 A, p. 151.

Order ANTIARCHA Cope.

- Cope, E. D. 1885, I p. 291.
 1886 D, p. 1081.
 1887 S, p. 323.
 1891 N, p. 9.
 1898 B, p. 15.

- Gadow, H. 1896 A, p. 4.
 Traquair, R. H. 1900 A, p. 159.

ASTEROLEPIDÆ.

- Cope, E. D. 1885 I. (Pterichthyidæ.)
 1886 D. (Pterichthyidæ, Bothriolepididæ.)
 1887 O, p. 1015. (Pterichthyidæ, Bothriolepididæ.)
 1887 S, p. 323. (Pterichthyidæ.)
 1899 R, p. 853. (Pterichthyidæ.)
 Gürich, G. 1891 A, p. 910. (Pterichthyidæ.)
 Haeckel, E. 1895 A, pp. 248, 658. (Asterolepides)
 Jaekel, O. 1893 A.
 Nicholson and Lydekker 1889 A, p. 962. (Asterolepididæ.)

- Rohon, J. V. 1899 A, p. 20.
 Steinmann and Döderlein 1890 A, p. 552. (Asterolepididæ.)
 Traquair, R. H. 1888 C, pls. xvii, xviii.
 1894 C, pp. 64, 70.
 1900 B, p. 467.
 Woodward, A. S. 1891 A, pp. xviii, 208.
 1896 B, p. 12.

ASTEROLEPIS Eichwald. Type *A. ornata* Eichwald.

- Eichwald, E. 1840 A, p. 79.
 Agassiz, L. 1844 B, p. 89 (Asterolepis, in part); p. 111 (Odontacanthus).
 Beyrich, E. 1877 A.
 Egerton, P. H. 1859 A, p. 121.
 Eichwald, E. 1846 A, pt. II, p. 283.
 1857 A, p. 345.
 1860 A, p. 1504, pl. lvi, fig. 1 (Asterolepis); p. 1521 (Coccosteus).
 Jaekel, O. 1896 B, p. 128.
 Miller, J. 1872 A.
 Newberry, J. S. 1856 A.
 1873 A, p. 323.

- Pander, C. H. 1857 A.
 Rohon, J. V. 1891 A.
 1899 A, pp. 20, 70.
 Traquair, R. H. 1888 B, p. 508.
 1888 C, p. 492.
 1889 A.
 1894 C, p. 71.
 Whiteaves, J. F. 1880 A, p. 132.
 Woodward, A. S. 1891 A, p. 208.
 1896 B, p. 15.
 Zittel, K. A. 1890 A, p. 155.
 There are no known American species of this genus.

ASTRASPIIS Walcott. Type *A. desiderata* Walcott.

- Walcott, C. D. 1892 A, p. 166.

Astraspis desiderata Walcott.

- Walcott, C. D. 1892 A, p. 166, pl. III, figs. 6-14; pl. IV, figs. 1-4.

- American Geologist 1891 E. (Asterolepis? desiderata.)
 Cope, E. D. 1893 I, p. 268.
 Dana, J. D. 1896 A, p. 509, fig. 695.
 Silurian (Ordovician); Colorado.

PTERICHTHYODES Bleeker. Type *Pterichthys milleri* Agassiz.

Bleeker, P. 1859, Tentamen, p. 11.

The following authors, unless otherwise noted, employ the name *Pterichthys* for this genus. It is, however, preoccupied by Swainson, 1839.

Agassiz, L. 1843 A, p. 81.

1844 A.

1844 B, pp. 6, 151.

1846 A, p. 43.

Beyrich, E. 1877 A.

Collinge, W. E. 1893 A, p. 3.

Cope, E. D. 1885 I.

1886 D.

1887 S, p. 323.

1888 U, p. 914.

Dean, B. 1895 A, figures.

Egerton, P. H. 1848 A.

1859 A, pp. 121, 127.

Eichwald, E. 1846 A, p. 283.

Gandry, A. 1883 A, p. 228.

Günther, A. 1880 A, p. 351, figs. 135, 136.

1882 A.

Gürich, G. 1891 A, p. 910.

Hay, O. P. 1899 E, p. 791. (*Pterichthyodes*.)

Huxley, T. H. 1861 B, p. 29.

1872 A, p. 129.

Jaekel, O. 1893 A.

1896 B, p. 123.

McCoy, F. 1855 A, p. 598.

Miller, H. 1859 A, p. 42, pls. 1, 11.

Miller, S. A. 1889 A, p. 610.

1892 A, p. 716. (*Millerichthys*.)

Newberry, J. S. 1889 A, p. 110.

Nicholson and Lydekker 1889 A, p. 962.

Owen, R. 1860 E, p. 119.

Patton, W. H. 1890 A, p. 359.

Pictet, F. J. 1854 A, p. 221.

Quenstedt, F. A. 1885 A, p. 354.

Rohon, J. V. 1891 A.

1899 B, p. 10.

Steinmann and Döderlein 1890 A, p. 552.

Traquair, R. H. 1888 B, p. 508.

1888 C, p. 485.

1891 A, p. 125.

1894 C, pp. 63, 90.

Trautschold, H. 1880 B.

Whiteaves, J. F. 1880 A.

1883 B, p. 159.

Woodward, A. S. 1890 B.

1891 A, p. 208.

1892 B, p. 234.

1892 F, fig. 7.

1896 A, p. 139.

1898 B, p. 12.

Zittel, K. A. 1890 A, p. 163.

No American species of this genus are known.

BOTHRIOLEPIS Eichwald. Type *B. ornata* Eichwald.

Eichwald, E. 1840 A, p. 79.

Agassiz, L. 1844 B, p. 20 (*Pamphractus*): pp. 97,

151 (*Bothriolepis*): p. 134 (*Placothorax*).

Claypole, E. W. 1890 A, p. 257.

Collinge, W. E. 1893 A, p. 3.

Cope, E. D. 1886 D, p. 1081.

1887 O, p. 1015.

1889 B, p. 853.

Eichwald, E. 1846 A, p. 283.

1857 A, p. 345.

1860 A, p. 1511.

Gürich, G. 1891 A, p. 909.

Lahusen, I. 1880 A.

Leidy, J. 1856 E, p. 11. (*Stenacanthus*.)

1856 S, p. 164. (*Stenacanthus*.)

Miller, S. A. 1889 A, p. 588.

Newberry, J. S. 1889 A, p. 108.

Nicholson and Lydekker 1889 A, p. 962.

Patton, W. H. 1890 A, p. 359.

Roberts, G. E. 1864 A.

Rohon, J. V. 1899 A, p. 27.

1899 B, p. 10.

Steinmann and Döderlein 1890 A, p. 552.

Traquair, R. H. 1888 B, p. 509.

1888 C, p. 496.

1894 C, p. 63.

Trautschold, H. 1880 B.

Whiteaves, J. F. 1880 A, p. 132.

1881 B, p. 23.

1883 B, p. 159.

1899 A, p. 411.

Woodward, A. S. 1891 A, p. 223.

1892 B, p. 234.

1892 C, p. 484.

1898 B, p. 14.

Woodward and Sherborn 1890 A, p. 18.

Zittel, K. A. 1890 A, p. 167.

Bothriolepis canadensis Whiteaves.

Whiteaves, J. F. 1880 A, p. 132. (*Pterichthys*.)

Cope, E. D. 1881 L. (*Pterichthys*.)

1885 I, fig. 1.

1886 D.

1887 S, p. 323, fig. 62.

1888 U, p. 914, pl. xv, figs. 1, 2.

1891 N, p. 9, fig. 2.

1892 X.

1898 B, p. 16, fig. 2.

Dana, J. D. 1896 A, p. 617, fig. 960.

Miller, S. A. 1889 A, p. 588, fig. 1104.

Traquair, R. H. 1888 B, p. 509.

1888 C, p. 496, pl. xviii, fig. 6.

Whiteaves, J. F. 1881 B, p. 26. [*Pterichthys* (*Bothriolepis*).]

1881 C, p. 28. (*Pterichthys*.)

1883 A, p. 353. (*Pterichthys*.)

1883 B, p. 158. (*Pterichthys*.)

1887 A, p. 101, pls. vi-ix. (*Pterichthys*.)

1889 A, p. 91.

1899 A, p. 411.

Williams, H. S. 1893 A, p. 286, figure.

Woodward, A. S. 1891 A, p. 223.

1892 C, p. 484.

Devonian; Province of Quebec, Canada.

Bothriolepis minor Newb.

Newberry, J. S. 1889 A, p. 112, pl. xx, figs. 6-8.

Cope, E. D. 1892 L, p. 224.

Eastman, C. R. 1899 F, p. 324, fig. 5.

Woodward, A. S. 1891 A, p. 232.

Devonian (Chemung); Pennsylvania.

Bothriolepis nitida (Leidy).

- Leidy, J.* 1856 E, p. 11. (*Stenacanthus*).
Cope, E. D. 1892 L, p. 221. (B. leidy).
Eastman, C. R. 1899 F, p. 324. (B. leidy).
Leidy, Jos. 1856 A, p. 421. (*Stenacanthus*).
 1856 S, p. 163, pl. xvii, fig. 4 (*Holoptychius americanus*, in part); p. 164, pl. xvi, figs. 7-8 (*Stenacanthus*).

- Newberry, J. S.* 1889 A, pp. 109, 111, pl. xviii, fig. 2; pl. xx, figs. 1-5. (B. leidy).
Whitfield and Hovey 1900 A, p. 348. (B. leidy).
Woodward 1891 A, p. 232. (B. leidy).
 Devonian (Catskill); Pennsylvania, New York.

Order ARTHRODIRA Cope.

- Cope, E. D.* 1891 B, p. 454.
 1891 N, p. 14.
 1898 B, p. 29.
Dean, B. 1895 A, p. 129.
Dollo, L. 1896 A.
Eastman, C. R. 1899 A, p. 643. ("Arthrodirea.")

- Gadow, H.* 1898 A, p. 11.
Traquair, R. H. 1891 A, p. 126.
 1900 B, pp. 470, 522.
Woodward, A. S. 1891 A, p. 276.
 1898 B, p. 64.

COCCOSTEIDÆ.

- Dean, B.* 1897 A, p. 61.
Eastman, C. R. 1896 A.
 1898 D, p. 748.
 1899 A, p. 643.
Steinmann and Döderlein 1890 A, p. 562.
Gürich, G. 1891 A, p. 910.

- Jaekel, O.* 1896 B, p. 127. ("Coccosteiden.")
Koenen, A. 1895 A, p. 8.
Rohon, J. V. 1899 A, p. 31.
Traquair, R. H. 1890 B, p. 55.
Woodward, A. S. 1891 A, p. 277.
 1898 B, p. 65.

COCCOSTEINÆ, nom. nov.

Coccosteus Agassiz. Type *C. decipiens* Agassiz.

- Agassiz, L.* 1844 B, p. 22.
 1843 A. (Definition insufficient; no species).
Alth, A. 1874 A, p. 38.
Claypole, E. W. 1893 A.
 1893 G, p. 615.
Collinge, W. E. 1893 A, p. 4.
Cope, E. D. 1886 D, p. 1030.
Dames, W. 1885 A.
Davis, J. W. 1880 A, p. 356.
Dean, B. 1895 A, p. 130.
Eastman, C. R. 1898 D, p. 748.
Egerton, P. H. 1859 A, p. 127.
Gaudry, A. 1883 A, p. 232.
Günther, A. 1880 A, p. 354, fig. 187.
Gürich, G. 1891 A.
Huxley, T. H. 1861 B, p. 29.
 1872 A, p. 129.
Jaekel, O. 1891 A.
 1899 A, p. 276.
Koenen, A. 1883 A, p. 9.
 1890 A.
 1895 A, p. 8.
Lahusen, I. 1880 A.
McCoy, F. 1855 A, p. 601.
Miller, H. 1859 A, p. 18, pls. iii, ix.
Miller, S. A. 1889 A, p. 591.
Newberry, J. S. 1856 A.
 1875 A, pp. 1-27, 32.
Nicholson and Lydekker 1889 A, p. 964.
Owen, R. 1860 E, p. 123.
 1866 A, p. 196, fig. 127.
Pander, C. H. 1857 A.
Pictet, F. J. 1854 A, p. 220.
Pollard, H. B. 1895 A, p. 419.
Quenstedt, F. A. 1885 A, p. 355.
Rohon, J. V. 1892 A, p. 18.
 1899 A, p. 31.
Ryder, J. A. 1890 A, p. 491.

- Steinmann and Döderlein* 1890 A, p. 562.
Traquair, R. H. 1888 B, p. 511.
 1889 A.
 1890 C.
 1890 D.
 1891 A, p. 126.
 1891 B.
 1893 A, p. 149.
 1900 A, p. 159.
Trautschold, H. 1880 C, p. 145.
 1889 A.
 1889 B.
Woodward, A. S. 1891 A, p. 278.
 1898 B, p. 60.
Woodward and Sherborn 1890 A, p. 37.
Wright, A. A. 1893 A, p. 621.
Zittel, K. A. 1890 A, p. 158.

Coccosteus canadensis Woodward.

- Woodward, A. S.* 1892 C, p. 483, pl. xiii, fig. 2.
Traquair, R. H. 1893 C, p. 265.
 Devonian; Canada.

Coccosteus cuyahogæ Claypole.

- Claypole, E. W.* 1893 A.
 1893 G, p. 615, pl. xii, fig. 2.
 Devonian (Cleveland shale); Ohio.

Coccosteus macromus Cope.

- Cope, E. D.* 1892 L, p. 225.
 Devonian (Chemung); Pennsylvania.

Coccosteus occidentalis Newb.

- Newberry, J. S.* 1875 A, p. 32, pl. liv, figs. 2, 2a.
Claypole, E. W. 1893 A, p. 168.
 1893 G, p. 615.
Newberry, J. S. 1889 A, p. 52, pl. xxv, figs. 2, 2a.
Woodward, A. S. 1891 A, p. 293.
Zittel, K. 1890 A, p. 160.
 Devonian (Corniferous); Ohio.

LIognathus Newb. Type *L. spatulatus* Newb.

Newberry, J. S. 1873 A, p. 306.

Miller, S. A. 1889 A, p. 600.

1892 A, p. 716. (*Lispognathus*, type *Liognathus spatulatus*.)Newberry, J. S. 1889 A, p. 52. (Syn. of *Coccosteus*.)

Zittel, K. A. 1890 A, p. 162.

***Liognathus spatulatus* Newb.**

Newberry, J. S. 1873 A, p. 306, pl. xxix, fig. 4.

Claypole, E. W. 1893 A, p. 169. (*L. spatulatus*.)
1893 G, p. 615.

Miller, S. A. 1889 A, p. 600, fig. 1142.

1892 A, p. 716. (*Lispognathus*.)Newberry, J. S. 1889 A, p. 52. (Syn. of *Coccosteus occidentalis*.)

Devonian (Corniferous); Ohio.

Phlyctænaspis Traquair. Type *Coccosteus acadicus* Whiteaves.

Traquair, R. H. 1890 E, p. 144.

Collinge, W. E. 1893 A, p. 5.

Eastman, C. R. 1898 D, p. 756.

Traquair, R. H. 1890 A, p. 20. (*Phlyctænius*, type *Coccosteus acadicus*; preoccupied by *Phlyctænum* Zittel.)1890 B. (*Phlyctænius*.)1894 B. (*Phlyctænaspis*.)

1900 A, p. 159.

Whiteaves, J. F. 1899 A, p. 412.

Woodward, A. S. 1891 A, p. 296.

***Phlyctænaspis acadica* (Whiteaves).**Whiteaves, J. F. 1881 E, p. 94, fig. 1. (*Coccosteus*.)Claypole, E. W. 1893 A, p. 168. (*Coccosteus*.)1898 G, p. 615. (*Coccosteus*.)

Dana, J. D. 1896 A, p. 616, fig. 964.

Traquair, R. H. 1890 A.

1890 B, p. 60, pl. iii, figs. 1, 2. (*Phlyctænius*.)

1893 A, p. 147, fig. 1.

1898 D, p. 115.

Whiteaves, J. F. 1883 A, p. 355. (*Coccosteus*.)1883 B, p. 163. (*Coccosteus*.)1889 A, p. 93, pl. ix. (*Coccosteus*.)Williams, H. S. 1893 A, p. 286. (*Phlyctænius*.)

Woodward, A. S. 1891 A, p. 296.

1892 A, p. 5, pl. 1, figs. 7, 8.

1892 C, p. 481.

Devonian; New Brunswick.

Aspidichthys Newb. Type *A. clavatus* Newb.

Newberry, J. S. 1873 A, pp. 269, 322.

Koenen, A. 1883 A, p. 33.

1895 A, p. 13.

Miller, S. A. 1889 A, p. 587.

Newberry, J. S. 1870 B, p. 153. (*Aspicophorus*; preoccupied.)

1889 A, pp. 26, 59, 72.

Whiteaves, J. F. 1892 A, p. 356.

Zittel, K. A. 1890 A, p. 158.

***Aspidichthys clavatus* Newb.**

Newberry, J. S. 1873 A, pp. 257, 269, 273, 323, pl. xxxv, figs. 1, 2.

Miller, S. A. 1889 A, p. 588, fig. 1102.

Newberry, J. S. 1889 A, p. 73, pl. xxxviii, figs. 3, 4.

Whiteaves, J. F. 1892 A, p. 358.

Williams, H. S. 1887 A, p. 43.

Devonian (Cleveland shale); Ohio (Portage); New York.

***Aspidichthys? notabilis* Whiteaves.**

Whiteaves, J. F. 1892 A, p. 354, pl. xlvii, figs. 1, 1a.

1898 B, p. 411, pl. 1, figs. 1, 2.

Devonian, Manitoba.

DINICHTHYINÆ.

Eastman, C. R. 1897 D, p. 84.

Most of the following authors regard this group as of family value:

Claypole, E. W. 1892 B.

Cope, E. D. 1890 H.

Dean, B. 1895 A, p. 130.

1896 A.

Eastman, C. R. 1896 A.

1896 B.

1898 C, p. 372. (*Coccosteidae*, in part.)1898 D, p. 747. (*Dinichthyinæ*.)Newberry, J. S. 1885 D, p. 14. (*Dinichthyidæ*.)

Nicholson and Lydekker 1889 A, p. 965.

Woodward, A. S. 1891 A, p. 277. (*Coccosteidae*, in part.)**DINICHTHYS Newb. Type *D. hertzeri* Newb.**

Newberry, J. S. 1868 B, p. 146.

American Geologist 1891 A.

Claypole, E. W. 1888 A, p. 63.

1892 A (*Dinichthys*); p. 1 (*Gorgonichthys*, type *G. clarki*.)

1892 B.

1892 C.

1898 E, p. 97. (*Gorgonichthys*.)

Claypole, E. W. 1888 A, p. 63.

1893 G, p. 606 (*Dinichthys*); p. 614 (*Gorgonichthys*).

1894 C, p. 189.

1895 E, p. 473. (*Gorgonichthys*.)

1896 B.

Cope, E. D. 1890 H.

1891 B, p. 450.

1892 X.

Dean, B. 1891 A.

1896 A.

1896 A, pls. vii, viii.

1897 A, p. 57, pls. ii, iii.

Eastman, C. R. 1896 A.

1896 B.

1896 C.

1897 D, p. 19.

1898 A.

1898 C, p. 371.

1898 D, p. 747.

1899 A, p. 643.

1900 B, p. 32.

Hay, O. P. 1899 E, 791.

Hitchcock, C. H. 1868 A, p. 184.

Huene, F. 1900 A, p. 64.

Koenen, A. 1895 A, p. 16.

Miller, S. A. 1889 A, p. 596.

1892 A, p. 717. (Ponerichthys, type *D. terrelli* Newb.)

Newberry, J. S. 1870 B, p. 153.

1873 A, pp. 257, 269, 313.

1875 A, p. 3.

1883 B.

1884 A.

1885 A.

1885 B, p. 25.

1885 D, p. 11.

1889 A, p. 135.

1892 A.

Nicholson and Lydekker 1889 A, p. 966.

Pollard, H. B. 1895 A, p. 420.

Reis, O. M. 1896 A, p. 152.

Steinmann and Döderlein 1890 A, p. 563.

Woodward, A. S. 1891 A, p. 300.

1898 B, p. 68.

Wright, A. A. 1894 A, p. 313.

1893 A, p. 620.

Zittel, K. A. 1890 A, p. 160.

***Dinichthys canadensis* Whiteaves.**

Whiteaves, J. F. 1892 A, p. 353, pl. xli, fig. 12.

Claypole, E. W. 1896 B, p. 355.

1893 G, p. 606.

Miller, S. A. 1897 A, p. 793. (Ponerichthys.)

Upper Devonian; Manitoba.

***Dinichthys clarki* (Claypole).**

Claypole, E. W. 1892 A. (Gorgonichthys.)

1893 E, p. 97. (Gorgonichthys.)

1893 G, p. 614, pl. xli, fig. 3. (Gorgonichthys.)

1895 E, p. 473. (Gorgonichthys.)

Eastman, C. R. 1900 A, p. 35.

Devonian (Cleveland shale); Ohio.

***Dinichthys curtus* Newb.**

Newberry, J. S. 1888 D, p. 179.

Claypole, E. W. 1893 G, p. 606.

Eastman, C. R. 1900 B, p. 33.

Miller, S. A. 1892 A, p. 717. (Ponerichthys.)

Newberry, J. S. 1889 A, p. 156, pls. xlviii, fig. 37; pl. liii, figs. 1-3.

Woodward, A. S. 1891 A, p. 301.

Wright, A. A. 1893 A, p. 623.

Devonian (Cleveland shale); Ohio.

***Dinichthys gouldii* Newb.**

Newberry, J. S. 1885 B, p. 26.

Claypole, E. W. 1893 G, p. 606.

1896 C.

Dean, B. 1896 A, pls. vii, viii.

1897 A, p. 60, pl. ii.

Miller, S. A. 1892 A, p. 717. (Ponerichthys.)

Newberry, J. S. 1889 A, p. 150, pl. ix, fig. 1; pl. x, figs. 1, 2.

Woodward, A. S. 1891 A, p. 301.

Devonian (Cleveland shale); Ohio.

***Dinichthys gracilis* Claypole.**

Claypole, E. W. 1893 F, p. 279, text figures.

1893 G, p. 607, pl. xli, fig. 1.

Miller, S. A. 1897 A, p. 793. (Ponerichthys.)

Devonian (Cleveland shale); Ohio.

***Dinichthys halmodeus* (Clarke).**

Clarke, J. M. 1894 A, p. 162, pl. i, and text figures. (Coccosteus.)

Eastman, C. R. 1900 B, p. 34.

Devonian; New York.

***Dinichthys hertzeri* Newb.**

Newberry, J. S. 1868 B.

Claypole, E. W. 1893 E, p. 94.

1893 F, p. 277.

1893 G, p. 606.

Dana, J. D. 1896 A, p. 617, figs. 965, 966.

Dean, B. 1891 A, p. 310, pl. i; pl. iii, figs. 3, 4.

Eastman, C. R. 1900 B, p. 34.

Hitchcock, C. H. 1868 A, p. 184, figs. 1, 2.

Lesley, J. P. 1889 A, p. 202, figure.

1892 A, p. 1333.

Miller, S. A. 1889 A, p. 596.

1892 A, p. 717. (Ponerichthys.)

Newberry, J. S. 1873 A, p. 316, pls. xxx, xxxi.

1875 A, p. 3.

1878 A, p. 189.

1885 D, p. 11. (D. stertzeri, *error*.)

1889 A, pp. 64, 338, pl. xxxiii, fig. 2.

Woodward, A. S. 1891 A, pp. 301, 302.

Zittel, K. A. 1890 A, p. 160.

Devonian (Huron shale); Ohio.

***Dinichthys intermedius* Newb.**

Newberry, J. S. 1889 A, p. 152, pl. x, figs. 1, 2; pl. xlvii, figs. 1, 2, 37, 4; pls. ii, iii.

Claypole, E. W. 1892 C.

1893 G, p. 606.

1894 A, p. 190.

1896 C.

Dean, B. 1891 A, p. 312, pl. ii; pl. iii, figs. 1, 2.

1896 A, p. 133, figs. 133, 136, 144.

Eastman, C. R. 1897 D, p. 19, pl. i, fig. 1; pl. iii, fig. 1 (?).

1898 C, p. 371.

1898 D, pp. 747, 755, fig. 3.

1900 B, p. 33.

Miller, S. A. 1892 A, p. 717. (Ponerichthys.)

Woodward, A. S. 1891 A, p. 301.

Wright, A. A. 1893 A, p. 623.

Devonian (Cleveland shale); Ohio.

Dinichthys lincolni Claypole.

Claypole, E. W. 1893 F, p. 277, text figure.
 Miller, S. A. 1897 A, p. 793. (Ponerichthys.)
 Devonian (Marcellus); Pennsylvania.

Dinichthys minor Newb. (not of Ringueberg).

Newberry, J. S. 1878 A, p. 191.
 Claypole, E. W. 1893 G, p. 606.
 Dean, B. 1897 A, p. 58. (D. minor?)
 Miller, S. A. 1892 A, p. 717. (Ponerichthys.)
 Newberry, J. S. 1889 A, p. 149, pl. viii, figs. 1-8.
 Devonian (Cleveland shale); Ohio.

Dinichthys newberryi Clarke.

Clarke, J. M. 1885 A, p. 17, pl. i, fig. 1.
 1897 A, p.
 Claypole, E. W. 1893 G, p. 606.
 Eastman, C. R. 1897 D, p. 30, pl. i, fig. 2; pl. iv.
 Newberry, J. S. 1889 A, p. 153.
 Lesley, J. P. 1899 A, p. 202, figure.
 Woodward, A. S. 1891 A, p. 301.
 Devonian (Hamilton); New York.

Dinichthys præmaxillaris nom. nov.

Claypole, E. W. 1893 F, p. 279, pl. xii. (D. clarki, preoccupied by *Gorgonichthys clarki* 1892.)
 1898 G, p. 607, pl. xii, fig. 1. (D. clarki.)
 Eastman, C. R. 1900 B, p. 35. (D. clarki.)
 Miller, S. A. 1897 A, p. 793. (Ponerichthys clarki.)
 Devonian (Cleveland shale); Ohio.

Dinichthys ? precursor Newb.

Newberry, J. S. 1889 A, p. 51, pl. xii.
 Claypole, E. W. 1893 G, p. 606. (D. precursor.)
 Eastman, C. R. 1899 F, p. 319. (Syn. of *D. tuberculatus*.)
 Miller, S. A. 1892 A, p. 717. (Ponerichthys precursor.)
 Woodward, A. S. 1891 A, p. 302.
 Devonian (Corniferous); Ohio.

Dinichthys prentis-clarki. Claypole.

Claypole, E. W. 1896 C, pl. vii.
 Miller, S. A. 1897 A, p. 792. (D. prentis clarki.)
 Devonian (Cleveland shale); Ohio.

Dinichthys pustulosus Eastman.

Eastman, C. R. 1897 D, p. 38, pl. iii, fig. 4 (D. pustulosus); p. 40 (D. mixerl).
 1898 B, p. 556.
 1898 C, p. 371.
 1898 D, p. 748, figs. 1, 2.
 1899 B, pp. 278, 283.
 1900 B, p. 32, fig. 1.
 Devonian (Hamilton); Wisconsin, Iowa, Illinois, New York.

Dinichthys ringuebergi Newb.

Newberry, J. S. 1889 A, p. 60.
 Claypole, E. W. 1893 G, p. 606.

Eastman, C. R. 1897 D, p. 49.

Lesley, J. P. 1892 A, p. 1333. (No name.)

Ringueberg, E. N. S. 1884 A. (D. minor; not of Newberry.)

Woodward, A. S. 1891 A, p. 302.
 Devonian (Portage); Ohio.

Dinichthys terrelli Newb.

Newberry, J. S. 1873 A, p. 322, pls. xxxii-xxxiv.
 Claypole, E. W. 1893 G, pp. 606, 607, pl. xliii, figs. 1-5.

1893 E, p. 95.

1894 C, p. 189, figs. 1-5.

Cope, E. D. 1891 B, p. 450.

Dean, B. 1891 A, p. 810.

1896 A, p. 137.

1896 A, pl. viii, fig. 3.

1897 A, p. 59, pl. iii.

Eastman, C. R. 1896 B.

1897 D, pl. ii, figs. 1, 5, 6; pl. iii, fig. 2.

1898 D, pp. 747, 758.

Miller, S. A. 1892 A, p. 717. (Ponerichthys.)

Newberry, J. S. 1873 A, p. 316, pls. xxxii-xxxiv.
 (D. hertzeri, in part.)

1874 C, p. 149.

1875 A, p. 27, charts v, vi.

1885 D, p. 71.

1888 D, p. 179.

1889 A, *passim*, pl. iv, figs. 1, 2.

1892 A.

Woodward, A. S. 1890 A, p. 391.

1891 A, p. 302.

1891 D.

Wright, A. A. 1893 A, p. 621, pl. xlii; text fig. 1.

1894 A, pl. ix.

Devonian (Cleveland shale); Ohio.

Dinichthys tuberculatus Newb.

Newberry, J. S. 1888 D, p. 179.
 Claypole, E. W. 1893 F, p. 277.
 1893 G, p. 606.
 Cope, E. D. 1892 X, p. 1025. (D. pustulosus.)
 Eastman, C. R. 1896 A.
 1897 D, p. 38.
 1899 B, pp. 278, 283.
 1899 F, p. 318.

Lohest, M. 1890 A, p. 1vii. (D. pustulosus; *ade* Eastman.)

Miller, S. A. 1892 A, p. 717. (Ponerichthys.)

Newberry, J. S. 1889 A, p. 98, pl. xxxii.

Woodward, A. S. 1891 A, p. 302.

Devonian (Chemung); Pennsylvania; (Corniferous); Ohio; (Hamilton); Wisconsin; (Upper Devonian); Iowa.

Dinichthys sp. indet.

Eastman, C. R. 1899 F, p. 320, fig. 1.
 Devonian (Chemung); New York.

Dinichthys sp. indet.

Eastman, C. R. 1899 F, p. 326, fig. 6.
 Devonian (Catskill); New York.

STENOGNATHUS Newb. Type *Dinichthys corrugatus* Newb.

Newberry, J. S. 1897 A, p. 308.

Stenognathus corrugatus Newb.

Newberry, J. S. 1889 A, p. 151, pl. vii, figs. 3, 3a.
(*Dinichthys*.)

1885 B, p. 26. (No description.)

1897 A, p. 308, pl. xxiv, figs. 27, 28. (*Stenognathus*.)

Woodward, A. S. 1891 A, p. 301. (*Dinichthys*).
Devonian (Cleveland shale); Ohio.

TITANICHTHYS Newb. Type *T. agassizii* Newb.

Newberry, J. S. 1885 B, p. 27.

American Geologist 1891 A.

Claypole, E. W. 1892 A.

1892 B.

1893 E, p. 95.

1898 G, pp. 606, 611.

Cope, E. D. 1891 B, p. 450.

Eastman, C. R. 1896 B.

1898 D.

1899 A, p. 643.

Miller, S. A. 1892 A, p. 717.

Newberry, J. S. 1885 D, p. 13.

Woodward, A. S. 1891 A, p. 302.

Titanichthys agassizii Newb.

Newberry, J. S. 1885 B, p. 27.

Claypole, E. W. 1893 G, p. 606, pl. xlii, fig. 5.

Cope, E. D. 1891 B, p. 450.

Dana, J. D. 1888 A, p. 498.

Eastman, C. R. 1896 C, p. 372.

1898 D, p. 761, fig. 4.

1899 D, p. 15.

Newberry, J. S. 1889 A, p. 153, pl. i; pl. ii, figs. 1, 2; pl. iv, fig. 4.

Woodward, A. S. 1891 A, p. 302.

Devonian (Cleveland shale); Ohio.

TRACHOSTEUS Newb.

Newberry, J. S. 1889 A, p. 166.

Dean, B. 1893 B.

1895 A, p. 136.

1897 A, p. 59.

Miller, S. A. 1892 A, p. 717.

Woodward, A. S. 1891 A, p. 311.

Titanichthys attenuatus Wright.

Wright, A. A., in Claypole, E. W. 1893 G, p. 612,
pl. xlii, figs. 1, 2.

Devonian (Cleveland shale); Ohio.

Titanichthys brevis Claypole.

Claypole, E. W. 1896 A, pl. x.

Devonian (Cleveland shale); Ohio.

Titanichthys clarkii Newb.

Newberry, J. S. 1887 C, p. 164.

Claypole, E. W. 1888 A, p. 62.

1893 G, p. 608, pl. xlii, fig. 3.

Cope, E. D. 1888 P.

Dana, J. D. 1888 A, p. 496.

Dean, B. 1895 A, p. 136, fig. 139.

Eastman, C. R. 1896 C, p. 372.

1898 D, p. 765, fig. 5; fig. 6?

Newberry, J. S. 1889 A, p. 133, pl. ii, figs. 3, 4; pl. iii.

Woodward, A. S. 1891 A, p. 302.

Devonian (Cleveland shale); Ohio.

Titanichthys rectus Claypole.

Claypole, E. W. 1893 G, p. 609, pl. xlii, fig. 5.

Devonian (Cleveland shale?); Ohio.

Titanichthys sp. indet.

Claypole, E. W. 1893 G, p. 609, pls. xxxviii, xxxix.

Type *T. clarkii* Newb.**Trachosteus clarkii** Newb.

Newberry, J. S. 1889 A, p. 167, pl. xlii, figs. 1-3.

Claypole, E. W. 1888 A, p. 63.

Dean, B. 1895 A, p. 137, fig. 140.

Woodward, A. S. 1891 A, p. 311.

Devonian (Cleveland shale); Ohio.

DIPLOGNATHUS Newb.

Newberry, J. S. 1878 A, p. 183.

Dean, B. 1895 A, p. 137.

1897 A, p. 60.

Newberry, J. S. 1885 A.

1885 B, p. 27.

1889 A, p. 159.

Zittel, K. A. 1890 A, p. 162.

Diplognathus mirabilis Newb.

Newberry, J. S. 1878 A, p. 183.

Type *D. mirabilis* Newb.

Dean, B. 1895 A, p. 137, figs. 141-143.

Newberry, J. S. 1884 A.

1885 A.

1885 B, p. 27.

1889 A, p. 159, pl. xi, figs. 1-4; pl. xii, figs. 1-3.

Woodward, A. S. 1891 A, p. 312.

Devonian (Cleveland shale); Ohio.

BRONTICHTHYS Claypole. Type *B. clarki* Claypole.

Claypole, E. W. 1894 B.

1895 E.

Miller, S. A. 1897 A, p. 792.

Brontichthys clarki Claypole.

Claypole, E. W. 1894 B, pl. xii.

Devonian (Cleveland shale); Ohio.

MACROPETALICHTHYIDÆ.

Eastman, C. R. 1896 C, p. 372.
1898 D, p. 748.

MACROPETALICHTHYS Norw. and Owen. Type *M. rhapsoidolabis* Norw. and Owen.

Norwood and Owen 1846 A.

Claypole, E. W. 1896 B, p. 354.

Cope, E. D. 1890 H.
1891 B, p. 449.
1891 C.

Dean, B. 1896 A, p. 185.

Eastman, C. R. 1897 C.

1898 C, p. 372.
1898 D, p. 748.
1900 B, p. 36.
1900 C, p. 392 (*Macropetalichthys*); p. 391
(*Physichthys*).
1900 D, p. 177. (*Physichthys*.)

Koenen, A. 1896 A, p. 22.

Meyer, H. v., 1856, *Palæontographica*, iv, p. 80.
(*Physichthys*.)

Miller, S. A. 1889 A, p. 601.

Newberry, J. S. 1846 A, p. 291.

1857 A, p. 147. (*Agassizichthys*.)
1857 C, p. 122. (*Agassizichthys*.)
1862 A, p. 75, fig. 1.
1870 B, p. 152.
1873 A, p. 290 *et passim*.
1889 A, p. 41.

Nicholson and Lydekker 1889 A, p. 975.

Norwood and Owen 1846 B.

Woodward, A. S. 1891 A, p. 308.

1892 B, p. 233.

Zittel, K. A. 1890 A, p. 164.

Macropetalichthys rhapsoidolabis
Norwood and Owen.

Norwood and Owen 1846 A, figs. 1, 2.

Kindle, E. M. 1898 A, p. 484.

Miller, S. A. 1889 A, p. 601.

Norwood and Owen 1846 B.

Newberry, J. S. 1853 A, p. 12, fig. 1.

Woodward, A. S. 1891 A, p. 304. (Syn. of *M. sullivanti*.)

Devonian (Corniferous); Indiana.

Owen in the original description mentions the alternative name, *Pterichthys norwoodensis*.

Macropetalichthys sullivanti Newb.

Newberry, J. S. 1857 C, p. 122, fig. 1 (*Agassizichthys manni*); p. 123 (*A. sullivanti*).

Cope, E. D. 1891 B, pp. 449, 456, pl. xxx, fig. 5.

Eastman, C. R. 1897 C, pl. xii and text fig. 1.

Lesley, J. P. 1892 A, pl. cl.

Miller, S. A. 1889 A, p. 601, fig. 1146.

Newberry, J. S. 1857 A, p. 147. (*Agassizichthys sullivanti, A. manni*.)

1862 A, p. 75. (*A. sullivanti, A. manni*.)

1873 A, p. 294 *et passim*, pl. xxv, fig. 1.

1889 A, p. 28 (*M. manni*); p. 306, pl. xxxviii, figs. 1-2a (*M. sullivanti*).

Whiteaves, J. W. 1880 A, p. 138.

1889 B, p. 119.

Woodward, A. S. 1891 A, p. 304.

Devonian (Corniferous); Ohio.

GLYPTASPIS Newb. Type *G. verrucosa* Newb.

Newberry, J. S. 1889 A, p. 157.

Dean, B. 1897 A, p. 59.

Miller, S. A. 1892 A, p. 715.

Newberry, J. S. 1897 A, p. 304.

Glyptaspis verrucosa Newb.

Newberry, J. S. 1889 A, p. 158, pl. xlii, figs. 1, 2.

Woodward, A. S. 1891 A, p. 311.

Devonian (Cleveland shale); Ohio.

ASTEROSTEIDÆ.

Woodward, A. S. 1891 A, p. 312.

ASTEROSTEUS Newb. Type *A. stenocephalus* Newb.

Newberry, J. S. 1875 A, p. 35.

Eastman, C. R. 1900 B, p. 36.

Miller, S. A. 1889 A, p. 588.

Newberry, J. S. 1889 A, p. 44.

Woodward, A. S. 1891 A, p. 312.

Zittel, K. A. 1890 A, p. 164.

Asterosteus stenocephalus Newb.

Newberry, J. S. 1875 A, p. 36, pl. liv, fig. 1.

Claypole, E. W. 1896 B, p. 354.

Newberry, J. S. 1889 A, p. 45, pl. xxx, fig. 1.

Whitfield and Hovey 1900 A, p. 848.

Woodward, A. S. 1891 A, p. 313.

Devonian (Corniferous); Ohio.

PHYLLOLEPIDÆ.

Woodward, A. S. 1891 A, p. 313.

PHYLLOLEPIS Agassiz. Type *P. concentrica* Agassiz.

Agassiz, L. 1844 B, p. 67.

Fritsch, A. 1889 B (1888), p. 89.

Glebel, C. G. 1848 A, p. 227.

Newberry, J. S. 1889 A, p. 97.

Pictet, F. J. 1854 A, p. 144.

Woodward, A. S. 1891 A, p. 313.

Zittel, K. A. 1890 A, p. 180.

Phyllolepis delicatula Newb.

Newberry, J. S. 1889 A, p. 97, pl. xix, fig. 11.

Woodward, A. S. 1891 A, p. 314.

Devonian (Chemung); Pennsylvania.

HOLONEMA Newb. Type *H. rugosum* Clappole.

- Newberry, J. S. 1889 A, p. 92.
 Clappole, E. W. 1890 A.
 Cope, E. D. 1891 B, p. 456.
 1892 L, p. 221, pl. vii, fig. 3.
 Dana, J. D. 1896 A, p. 616, fig. 698.
 Dean, B. 1897 A, p. 59.
 Miller, S. A. 1892 A, p. 715.
 Williams, H. S. 1891 A.
 1893 A, p. 285.
 Woodward, A. S. 1891 A, p. 314.
 1892 B, p. 234.

Holonema horridum Cope.

- Cope, E. D. 1892 L, p. 222, pl. vii, fig. 1.
 Devonian (Chemung); Pennsylvania.

Holonema rugosum (Clappole).

- Clappole, E. W. 1883 A, fig. 1. (Pterichthya)
 1890 A, p. 255. (Pterichthya)
 Cope, E. D. 1891 B, p. 456.
 Lesley, J. P., 1889 A, p. 808, figure.
 Newberry, J. S. 1889 A, p. 93, pl. xvii, figs. 1-4.
 Williams, H. S. 1891 A.
 1893 A, p. 285, with figures.
 Woodward, A. S. 1891 A, p. 315.
 Devonian (Chemung); Pennsylvania, New York.

MYLOSTOMATIDÆ.

- Woodward, A. S. 1891 A, p. 315.

MYLOSTOMA Newb. Type *M. variabile* Newb.

- Newberry, J. S. 1883 A, p. 145.
 Dean B. 1893 B.
 1896 A, p. 136.
 1897 A, p. 60.
 Miller, S. A. 1892 A, p. 716.
 Newberry, J. S. 1884 A.
 1886 A, p. 724.
 1889 A, p. 161.
 Woodward, A. S. 1891 A, p. 315.
 Zittel, K. A. 1890 A, p. 128.

Mylostoma terrelli Newb.

- Newberry, J. S. 1883 A, p. 147.
 1889 A, p. 164, pl. xiv, figs. 1, 2.

- Woodward, A. S. 1891 A, p. 316.
 Devonian (Cleveland shale); Ohio.

Mylostoma variabile Newb.

- Newberry, J. S. 1883 A, p. 146.
 Dean, B. 1896 A, p. 137, fig. 138.
 Newberry, J. S. 1889 A, p. 165, pla. xv, xvi.
 Woodward, A. S. 1891 A, p. 316.
 Devonian (Cleveland shale); Ohio.

Superorder DIPNOI Müller.

- Müller, J. 1846 C, p. 201.
 Ayres, H. 1893 A.
 Balfour, F. M. 1882 A, p. 432.
 Baur, G. 1896 C, p. 670.
 Beard, J. 1890 A.
 Beyrich, E. 1850 A, p. 153.
 Bridge, T. W. 1898 A, p. 325.
 Chamberlin, T. C. 1900 A, p. 411. ("Dipnoans.")
 Cope, E. D. 1872 C.
 1877 O, p. 41.
 1878 A, p. 292.
 1884 N, p. 579.
 1884 H H.
 1885 G.
 1887 S, pp. 184, 324.
 1889 R, pp. 853, 854.
 1890 B.
 1891 N, pp. 10, 14.
 1898 B, pp. 17, 21.
 Dean, B. 1896 A, p. 116.
 Dollo, L. 1896 A. ("Dipneustes.")
 Eastman, C. R. 1898 A, p. 110.
 Fritsch, A. 1889 B, p. 65.
 Gadow, H., 1898 A, p. 11.
 Gadow and Abbott 1896 A.

- Gegenbaur, C. 1866 B, pp. 72, 146.
 1896 A.
 1896 B.
 1898 A.
 Gill, T. 1861 A, p. 22.
 1873 B.
 1893 A, p. 130.
 1896 C, p. 912.
 Goepfert, E. 1895 A.
 Günther A. 1870 A, p. 321.
 1871 A.
 1872 A.
 1880 A, p. 355.
 1881 A, p. 686.
 Haeckel, E. 1896 A, p. 257. (Dipneusta.)
 Hasse, C. 1893 A.
 Hay, O. P. 1899 F, p. 682.
 Huxley, T. H. 1872 A, p. 145.
 Kehner, F. A. 1876 A, p. 251.
 Klaatsch, H. 1890 A, p. 209.
 1893 A.
 1896 A, p. 316.
 Miall, L. C. 1878 A.
 Mollier, S. 1893 A, p. 86.
 Müller, J. 1846 C, p. 201.

Newberry, J. S. 1873 A, pp. 249, 252.
 Nicholson and Lydekker 1889 A, p. 952.
 Orr, H. 1885 A.
 Owen, R. 1839 C. (On *Lepidostiren annectens*.)
 Parker, W. K. 1879 B, p. 31.
 Röse, C. 1892 B.
 1895 A, p. 566.
 Rohon, J. V. 1898 A.
 Ryder, J. A. 1896 A.
 Schneider A. 1886 A.
 Semon, R. 1899 A, p. 75.
 Stannius, H. 1854 A.

Steinmann and Döderlein 1890 A, p. 553.
 Stephan, P. 1900 A. ("Dipnoiques.")
 Teller, F. 1891 A.
 Thacher, J. K. 1877 A.
 Traquair, R. H. 1900 B, p. 521.
 Wiedersheim R. 1889 A, p. 430.
 Woodward, A. S. 1888 E.
 1891 A, pp. 20, 234.
 1898 B, p. 60.
 Zittel, K. A. 1886 A. (On *Ceratodus*.)
 1890 A, p. 122.

Order CTENODIPTERINI Pander.

Pander, C. H. 1858 A.
 Agassiz, L. 1846 A, p. 44. ("Diptériens.")
 Eichwald, E. 1860 A, p. 1584. ("Ctenodiptériens.")

Haeckel, E. 1895 A, p. 263. (Ctenodipneusta.)
 Huxley, T. H. 1861 B, p. 13. (Ctenododipterini.)
 Zittel, K. A. 1890 A, p. 125. (Ctenodipterini.)

DIPTERIDÆ.

Owen, R. 1860 E, p. 129.
 Günther, A. 1872 A, p. 554. (Ctenodipteridæ.)
 1890 A, p. 359. (Ctenodipteridæ.)
 Quenstedt, F. A. 1852 A, p. 228. (Dipterini.)
 1885 A, p. 349. (Dipterini.)

Steinmann and Döderlein 1890 A, p. 555.
 Woodward A. S. 1891 A, p. 235.
 1898 B, p. 62. (Ctenodontidæ, part.)

DIPTERUS Sedgw. and Murch. Type *D. valenciennesi* Sedgw. and Murch.

Sedgwick and Murchison, 1828, Trans. Geol. Soc.
 Lond. (2), iii, p. 143.
 Agassiz, L. 1843 A.
 1843 B, ii, pt. 1, p. 3 (1833) (Catopterus, type
C. anatis); p. 112 (1836) (Dipterus).
 1844 A.
 1844 B, pp. 5, 29. (Polyphractus.)
 Atthey, T. 1863 A.
 Bridge, T. W. 1898 A, p. 367.
 Cope, E. D. 1878 A, p. 298.
 Dean, B. 1895 A, p. 121, with figures.
 Dollo, L. 1896 A.
 Eastman, C. R. 1900 B, p. 37.
 Egerton, F. H. 1859 A, p. 125.
 Eichwald, E. 1860 A, p. 1535.
 Emery, C. 1897 B, p. 147.
 Günther, A. 1871 A, p. 428.
 1872 A, p. 556.
 Hancock and Atthey 1868 A, p. 370.
 1868 B, p. 54.
 1871 A.
 Huxley, T. H. 1861 B, p. 13, figs. 9, 10.
 McCoy, F. 1855 A, p. 590.
 Miall, L. C. 1878 B.
 Miller, H. 1859 A, pl. v.
 Miller, S. A. 1889 A, p. 596.
 Newberry, J. S. 1875 A, p. 8.
 1890 A, p. 87.
 Pander, C. H. 1858 A, p. 6, pls. i-v.
 Pictet, F. J. 1854 A, p. 192.
 Rohon, J. V. 1898 A.
 Steinmann and Döderlein 1890 A, p. 555.
 Traquair, R. H. 1878 A, p. 1.
 1888 B, p. 507.
 Woodward, A. S. 1891 A, p. 235.
 1893 C.
 1898 B, p. 63.

Woodward and Sherborn 1890 A, p. 69.
 Zittel, K. A. 1890 A, p. 125, fig. 135.

Dipterus calvini Eastman.

Eastman, C. R. 1900 B, p. 38, fig. 7.
 Udden, J. A. 1899 A, p. 494.
 Devonian (Cedar Valley limestone); Iowa.

Dipterus contraversus Hay.

Hay, O. P. 1899 E, p. 786.
 Eastman, C. R. 1900 B, p. 37.
 Newberry, J. S. 1889 A, p. 119, pl. xxvii, fig. 33.
 [D. (Ctenodus) radiatus; preoccupied.]
 Woodward, A. S. 1891 A, p. 242. [Dipterus
 (Ctenodus) radiatus.]
 Devonian (Catskill); Pennsylvania.

Dipterus costatus Eastman.

Eastman, C. R. 1900 B, p. 39, fig. 4.
 Devonian (Upper); Iowa.

Dipterus flabelliformis Newb.

Newberry, J. S. 1889 A, p. 90, pl. xvi, fig. 21. [D.
 (Ctenodus).]
 Eastman, C. R. 1900 B, p. 37.
 Newberry, J. S. 1897 A, p. 302. (Ctenodus.)
 Woodward, A. S. 1891 A, p. 242.
 Devonian (Chemung); Pennsylvania.

Dipterus fleisheri (Newb.).

Newberry, J. S. 1897 A, p. 302, pl. xxiv, fig. 25.
 (Ctenodus.)
 Eastman, C. R. 1900 B, p. 37.
 Devonian ("Catskill"); Pennsylvania.

Dipterus ithacensis Williams.

Williams, H. S. 1882 A.
 Woodward, A. S. 1891 A, p. 243.
 Devonian (Chemung); New York.

Dipterus minutus Newb.

Newberry, J. S. 1889 A, p. 91, pl. xxvii, fig. 26. [D. (Ctenodus).]

Eastman, C. R. 1900 B, p. 37.

Woodward, A. S. 1891 A, p. 242.

Devonian (Chemung); Pennsylvania.

Dipterus mordax Eastman.

Eastman, C. R. 1900 B, p. 39, figs. 6, 8.

Devonian (Upper); Iowa.

Dipterus nelsoni Newb.

Newberry, J. S. 1889 A, p. 89, pl. xxvii, figs. 19, 20.

[D. (Ctenodus) nelsoni.]

Dana, J. D. 1896 A, p. 617, fig. 968. (Ctenodus.)

Eastman, C. R. 1899 F, p. 322.

1900 B, p. 37.

Newberry, J. S. 1889 A, p. 90, pl. xxvii, figs. 22, 23.

[D. (Ctenodus) levia.]

Williams, H. S. 1887 A, p. 62, pl. iii, fig. 1 (D. nelsoni); pp. 63, 91, pl. iii, fig. 2 (D. ? laevis, or D. alleganensis).

Woodward, A. S. 1891 A, p. 242. (D. nelsoni, D. levia.)

Devonian (Chemung); Pennsylvania, New York.

Dipterus sherwoodi Newb.

Newberry, J. S. 1875 A, p. 61, pl. lviii, figs. 17-17b.

Dana, J. D. 1896 A, p. 617, fig. 967.

Eastman, C. R. 1900 B, p. 37.

Lesley, J. P. 1892 A, p. 1458.

Miller, S. A. 1889 A, p. 596, fig. 1128.

Newberry, J. S. 1889 A, p. 118, pl. xxvii, figs. 3, 3b.

[D. (Ctenodus).]

Woodward, A. S. 1891 A, p. 242.

Devonian (Catskill); Pennsylvania.

Dipterus uddeni Eastman.

Eastman, C. R. 1900 B, p. 37, figs. 5, 5f.

Devonian (Cedar Valley limestone); Iowa.

PALEODAPHUS Van Beneden and de Koninck. Type *P. insignis* Van Beneden and de Koninck.

Van Beneden and de Koninck, 1864 A, p. 143, pls. I, II.

Fritsch, A. 1889 B (1888), p. 88.

Miller, S. A. 1889 A, p. 599. (Heliodus.)

Newberry, J. S. 1875 A, p. 62. (Heliodus.)

1889 A, p. 86. (Heliodus.)

Nicholson and Lydekker, 1889 A, p. 967.

Traquair, R. H. 1878 A, p. 12.

Woodward, A. S. 1891 A, p. 243.

Zittel, K. A. 1890 A, p. 128.

Paleodaphus lesleyi (Newb.).

Newberry, J. S. 1875 A, p. 64, pl. lviii, fig. 18. (Heliodus.)

Lesley, J. P. 1892 A, p. 1461. (Heliodus.)

Miller, S. A. 1889 A, p. 599, fig. 1136. (Heliodus.)

Newberry, J. S. 1889 A, p. 86, pl. xviii, fig. 3. (Heliodus.)

Woodward, A. S. 1891 A, p. 244.

Devonian (Chemung); Pennsylvania.

CONCHODUS McCoy. Type *C. ostreaformis* McCoy.

McCoy, F. 1848 A, p. 312.

1855 A, p. 593.

Miller, S. A. 1889 A, p. 592.

Pictet, F. J. 1854 A, p. 269.

Rohon, J. V. 1898 A.

Woodward, A. S. 1891 A, p. 245.

Conchodus plicatus Dawson.

Dawson, J. W. 1868 A, p. 209, fig. 63.

1878 A, p. 209, fig. 53.

Miller, S. A. 1889 A, p. 592, fig. 1115.

Woodward, A. S. 1891 A, p. 255.

Coal-measures; Nova Scotia.

GANORHYNCHUS Traquair. Type *G. woodwardi* Traquair.

Traquair, R. H. 1878 A.

Miller, S. A. 1892 A, p. 715.

Woodward, A. S. 1891 A, p. 245.

Ganorhynchus beecheri Newb.

Newberry, J. S. 1889 A, p. 95, pl. xix, fig. 2.

Woodward, A. S. 1891 A, p. 246.

Devonian (Chemung); Pennsylvania.

Ganorhynchus oblongus Cope.

Cope, E. D. 1892 L, p. 225.

Devonian (Catskill); Pennsylvania.

PHANEROPLEURIDÆ.

Collinge, W. E. 1893 A, p. 3. (Phaneropleuron.)

Cope, E. D. 1878 A, p. 293. (Phaneropleuron.)

1887 O, p. 1018. (Haplistia.)

1889 R, p. 856. (Haplistia.)

1891 B, p. 460. (Haplistia.)

Günther, A. 1872 A, p. 555.

1880 A, p. 360.

1881 A, p. 687.

Haeckel, E. 1896 A, p. 262.

Huxley, T. H. 1861 B, p. 24. (Phaneropleurini.)

1861 C, (Phaneropleuron.)

Jaekel, O. 1890 B, p. 1.

Klaatsch, H. 1896 A, p. 316.

Steinmann and Döderlein, 1890 A, p. 554.

Traquair, R. H. 1871 A.

1875 C, p. 394.

1893 D, p. 121.

Woodward, A. S. 1891 A, p. 247. (Phaneropleuron.)

SCAUMENACIA Traquair. Type *S. curta* (Whiteaves).

- Traquair, R. H. 1893 C, p. 262.
 Dollo, L. 1896 A.
 Fritsch, A. 1889 B, p. 66 (1888). (Phaneropleuron.)
 Traquair, R. H. 1890 F, p. 393. (Phaneropleuron.)
 1893 D, p. 118.
 Woodward, A. S. 1898 B, p. 71.
Scaumenacia curta (Whiteaves).
 Whiteaves, J. F. 1881 C, p. 29. (Phaneropleuron.)
 Bridge, T. W. 1896 A, p. 368.
 Dana, J. D. 1896 A, p. 617, fig. 969. (Phaneropleuron.)
 Jaekel, O. 1890 B, p. 2.
 Traquair, R. H. 1890 A, p. 15.
 1890 F, p. 393. (Phaneropleuron.)

- Traquair, R. H. 1893 C, p. 262.
 1900 B, p. 520
 Whiteaves, J. F. 1881 A, p. 354. (Phaneropleuron.)
 1883 B, p. 160. (Phaneropleuron.)
 1881 C, p. 29. (Phaneropleuron.)
 1887 A, p. 108, pl. x, figs. 2-2c. (Phaneropleuron.)
 1889 A, p. 91, pl. v, fig. 3. (Phaneropleuron.)
 1891 A, p. 495. (Phaneropleuron.)
 Woodward, A. S. 1891 A, p. 248. (Phaneropleuron.)
 1893 C.
 1896 B, p. 22, fig. 20; p. 71. (Phaneropleuron.)
 Devonian (Upper); Canada.

Order SIRENOIDEI Müller.

- Müller, J. 1843 A, p. 217.
 Bischoff, T. L. W. 1840 A, pls. i-viii. (Lepidosiren.)
 Bridge, T. W. 1896 A.
 Cope, E. D. 1889 E, p. 854.
 1896 B, p. 29.
 Gadow, H. 1896 A, p. 11.
 Gill, T. 1896 A, p. 130.
 Günther, A. 1870 A, p. 821.
 1872 A, p. 554. (Sirenidae.)

- Günther, A. 1881 A, p. 686. (Sirenidae.)
 Kolliker, A. 1859 A.
 Miall, L. C. 1878 A, p. 12.
 Müller, J. 1846 C, p. 201.
 Owen, R. 1866 A.
 Wiedersheim, R. 1890 B. (Lepidosiren.)
 Woodward, A. S. 1891 A, p. 235, part.
 1896 B, p. 61, part.
 Zittel, K. A. 1890 A, p. 130.

CTENODONTIDÆ.

- Cope, E. D. 1889 E, p. 854. (Lepidosirenidae, part.)
 Traquair, R. H. 1888 A, p. 61.
 1893 D, p. 121.

- Woodward, A. S. 1891 A, p. 250.
 1896 B, p. 62.

CTENODUS Agassiz. Type *C. cristatus* Agassiz.

- Agassiz, L. 1843 B (1838), p. 137.
 1844 A.
 1844 B, p. 122.
 Atthey, T. 1868 A.
 1875 A.
 Barkas, W. J. 1873 A, pp. 27, 113.
 1877 A, pls. i-v.
 1878 A.
 Bridge, T. W. 1896 A, p. 367.
 Collinge, W. E. 1896 A, p. 4.
 Cope, E. D. 1878 A, p. 293.
 1881 K, p. 162.
 Dollo, L. 1896 A.
 Fritsch, A. 1889 B (1888), pp. 66, 93.
 Günther, A. 1871 A, p. 428.
 Hancock and Atthey 1868 A, p. 357.
 1868 B, p. 54.
 1871 A.
 1872 A, p. 257.

- Jaekel, O. 1890 B, p. 6.
 Miall, L. C. 1874 B, pl. xlvii.
 1878 B.
 1880 A, p. 289.
 Miller, S. A. 1889 A, p. 593.
 Pictet, F. J. 1854 A, p. 269.
 Steinmann and Döderlein 1890 A, p. 555.
 Woodward, A. S. 1888 E.
 1891 A, p. 250.
 Woodward and Sherborn 1890 A, p. 51.
 Zittel, K. A. 1890 A, p. 127.
Ctenodus wagneri Newb.
 Newberry, J. S. 1889 A, p. 172, pl. xxvii, fig. 30.
 1884 A. (No description.)
 1885 A, p. 121. (No description.)
 Woodward, A. S. 1891 A, p. 255.
 Devonian (Cleveland shale); Ohio.

SAGENODUS Owen. Type *S. inaequalis* Owen.

- Owen, R. 1867 B, p. 365, pl. xli.
 Barkas, W. J., 1874, Month. Rev. Dental Surg., ii, p. 538. (Petalodopsis, type *P. mirabilis*.)
 Cope, E. D. 1877 E, p. 192. (Ptyonodus, type *P. vinctus*.)
 1881 K, p. 162. (Ptyonodus.)
 1897 C.

- Fritsch, A. 1889 B (1888), p. 66. (Ctenodus, in part.)
 Gaudry, A. 1883 A, p. 239. (Megapleuron, type *M. rochei*.)
 Hancock and Atthey 1868 A, p. 347.
 1871 A. (Ctenodus, in part.)
 1872 A, p. 272. (Ctenodus, in part.)

- Hay, O. P. 1900 A, p. 100.
 Jaekel, O. 1890 B, p. 7. (Hemictenodus.)
 Williston, S. W. 1899 D, p. 175.
 Woodward, A. S. 1890 A, p. 394. (Ptyonodus, Hemictenodus.)
 1891 A, p. 255. (Sagenodus.)
 Woodward and Sherborn 1890 A, p. 50. (Syn. of Ctenodus.)

Sagenodus angustus (Newb.).

- Newberry, J. S. 1897 A, p. 308, pl. xxiv, fig. 26. (Ctenodus.)
 Dean, B., in Newberry, J. S. 1897 A, p. 303. (Sagenodus.)
 Eastman, C. R. 1900 B, p. 37. (Dipterus.)
 Devonian (Chemung); Pennsylvania.

Sagenodus copeanus Williston.

- Williston, S. W. 1899 D, p. 178, pls. xxviii, xxxv-xxxvii.
 Coal-measures; Kansas.

Sagenodus dialophus (Cope).

- Cope, E. D. 1878 B, p. 528. (Ctenodus.)
 1881 K, p. 162. (Ctenodus.)
 1888 BB, p. 285. (Ctenodus.)
 Williston, S. W. 1899 D, p. 176.
 Woodward A. S. 1891 A, p. 261. (Sagenodus.)
 Permian; Texas.

Sagenodus foliatus Cope.

- Cope, E. D. 1897 C, pp. 76, 77, pl. i, fig. 1.
 Hay, O. P. 1900 A, p. 107.
 Williston, S. W. 1899 D, p. 177.
 Coal-measures; Illinois.

Sagenodus fossatus (Cope).

- Cope, E. D. 1877 N, p. 53. (Ctenodus.)
 Case, E. C. 1900 A, p. 705, pl. i, figs. 10a, 10b.
 Cope, E. D. 1888 BB, p. 285. (Ctenodus.)
 Williston, S. W. 1899 D, p. 176.
 Woodward, A. S. 1891 A, p. 261.
 Permian; Illinois.

Sagenodus gurleyanus (Cope).

- Cope, E. D. 1877 N, p. 54. (Ctenodus.)
 Case, E. C. 1900 A, p. 704, pl. i, figs. 8a-8c.
 Cope, E. D. 1881 K, p. 162. (Ctenodus.)
 1888 B B, p. 285. (Ctenodus.)
 Hay, O. P. 1899 E, p. 785.
 Miller, S. A. 1889 A, p. 593. (Ctenodus gurleyanus.)
 Williston, S. W. 1899 D, p. 176.
 Woodward, A. S. 1891 A, p. 261.
 Permian; Illinois.

Sagenodus heterolophus (Cope).

- Cope, E. D. 1883 K, p. 109. (Ctenodus.)
 Case, E. C. 1900 A, p. 706.
 Williston, S. W. 1899 D, p. 176.
 Woodward, A. S. 1891 A, p. 261.
 Permian; Illinois.

Sagenodus jugosus Hay.

- Hay, O. P. 1900 A, p. 107.
 Newberry, J. S. 1875 A, p. 60. (Ctenodus reticulatus; not of Newberry and Worthen, 1870.)

- Woodward, A. S. 1891 A, p. 261. (Sagenodus reticulatus.)
 Coal-measures; Ohio.

Sagenodus lacovianus Cope.

- Cope, E. D. 1897 C, p. 79, pl. i, fig. 5.
 1897 C, p. 79, pl. i, fig. 4. (S. conchilepis.)
 Hay, O. P. 1900 A, p. 108.
 Williston, S. W. 1899 D, p. 177. (S. lacovianus, S. conchilepis.)
 Coal-measures; Illinois.

Sagenodus occidentalis (Newb. and Worth.).

- Newberry and Worthen 1866 A, p. 19, fig. 2. (Rhizodus.)
 Cope, E. D. 1897 C, p. 75 (S. occidentalis); p. 81, pl. i, fig. 7 (S. brownise).
 Hay, O. P. 1899 E, p. 787. (Megalichthys.)
 1900 A, p. 101.
 Miller, S. A. 1889 A, p. 611, fig. 1173. (Rhizodus.)
 Newberry, J. S. 1889 A, p. 192. (Rhizodus.)
 Newberry and Worthen 1870 A, pl. iv, fig. 1. (Rhizodus.)
 Williston, S. W. 1899 D, p. 177.
 Woodward, A. S. 1891 A, p. 348. (Strepsodus?).
 Coal-measures; Illinois.

Sagenodus ohionensis (Cope).

- Cope, E. D. 1875 D, p. 410, pl. xlv, fig. 2. (Ctenodus.)
 1873 O, p. 341. (Leptophractus obsoletus, part.)
 1874 S, p. 91. (Ctenodus, without specific name.)
 Newberry, J. S. 1875 A, p. 60. (Ctenodus.)
 1899 A, p. 226; woodcut, fig. 8. (Ctenodus.)
 Woodward, A. S. 1891 A, p. 262.
 Coal-measures; Ohio.

Sagenodus paucicristatus (Cope).

- Cope, E. D. 1877 N, p. 53. (Ceratodus.)
 Case, E. C. 1900 A, p. 707, pl. i, figs. 11a, 11b.
 Cope, E. D. 1877 E, p. 192. (Ptyonodus.)
 1881 K, p. 162. (Ptyonodus.)
 1888 BB, p. 285. (Ptyonodus.)
 Williston, S. W. 1899 D, p. 175.
 Woodward, A. S. 1891 A, p. 261.
 Permian; Illinois.

Sagenodus periprion (Cope).

- Cope, E. D. 1878 B, p. 527. (Ctenodus.)
 1881 K, p. 162. (Ctenodus.)
 1888 B B, p. 285. (Ctenodus.)
 Williston, S. W. 1899 D, p. 176.
 Woodward, A. S. 1891 A, p. 261.
 Permian; Texas.

Sagenodus porrectus (Cope).

- Cope, E. D. 1878 B, p. 527. (Ctenodus.)
 1881 K, p. 162. (Ctenodus.)
 1888 B B, p. 285. (Ctenodus.)
 Williston, S. W. 1899 D, p. 176.
 Woodward, A. S. 1891 A, p. 261.
 Permian; Texas.

Sagenodus pusillus (Cope).

- Cope, E. D. 1877 E, p. 191. (Ctenodus.)
 Case, E. C. 1900 A, p. 705, pl. 1, figs. 9a, 9b.
 Cope, E. D. 1881 K, p. 162. (Ctenodus.)
 1888 BB, p. 285. (Ctenodus.)
 Williston, S. W. 1899 D, p. 176.
 Woodward, A. S. 1891 A, p. 261.
 Permian; Illinois.

Sagenodus quadratus (Newb.).

- Newberry, J. S. 1875 A, p. 348, pl. xxxix, fig. 8.
 (Rhizodus.)
 Cope, E. D. 1897 C, pp. 76, 77.
 Eastman, C. R. 1900 B, p. 37. (Dipterus.)
 Hay, O. P. 1900 A, p. 103.
 Lesley, J. P. 1899 A, p. 877, figure. (Rhizodus.)
 1896 A, pl. dlxxi. (Rhizodus.)
 Newberry, J. S. 1889 A, p. 192. (Rhizodus.)
 Williston, S. W. 1899 D, p. 176.
 Woodward, A. S. 1891 A, p. 262. (Sagenodus?)
 Coal-measures; Ohio, Illinois.

Sagenodus quincunciatus Cope.

- Cope, E. D. 1897 C, p. 80, pl. 1, fig. 6.
 Hay, O. P. 1900 A, p. 109.
 Newberry and Worthen 1870 A, p. 349, pl. iii, figs.
 13, 14. (Rhizodus reticulatus, part.)
 Williston, S. W. 1899 D, p. 177.
 Coal-measures; Illinois.

Sagenodus reticulatus (Newb. and Worth.).

- Newberry and Worthen 1870 A, p. 349, pl. iii, fig.
 9, not figs. 13, 14. (Rhizodus.)
 Cope, E. D. 1897 C, p. 78, pl. 1, figs. 2, 3 (Sagenodus
 reticulatus); p. 81, pl. 1, fig. 8 (S. magister).
 Hay, O. P. 1900 A, p. 106.
 Williston, S. W. 1899 D, p. 177. (S. reticulatus, S.
 magister.)

GNATHORHIZA Cope. Type *G. serrata* Cope.

- Cope, E. D. 1888 H, p. 629.
 Miller, S. A. 1889 A, p. 508.
 The systematic position of this genus is very
 problematical.

- Woodward, A. S. 1891 A, p. 262. (Sagenodus?)
 Coal-measures; Illinois.

Sagenodus serratus (Newb.).

- Newberry, J. S. 1875 A, p. 50, pl. lviii, figs. 15, 16.
 (Ctenodus.)
 Miller, S. A. 1899 A, p. 593, fig. 1119. (Ctenodus.)
 Newberry, J. S. 1889 A, p. 226, pl. xxvii, fig. 31.
 (Ctenodus.)
 Williston, S. W. 1899 D, p. 176.
 Woodward, A. S. 1891 A, p. 261. (Sagenodus.)
 Coal-measures; Ohio.

Sagenodus textilis Hay.

- Hay, O. P. 1899 E, p. 786.
 Cope, E. D. 1897 C, p. 82, pl. 1, fig. 9. (S. gurleianus;
 preoccupied by Cope, 1877.)
 Hay, O. P. 1900 A, p. 110.
 Williston, S. W. 1899 D, p. 177. (S. gurleianus.)
 Coal-measures; Illinois.

Sagenodus vabasensis (Cope).

- Cope, E. D. 1888 K, p. 110. (Ctenodus.)
 Case, E. C. 1900 A, p. 704, pl. 1, fig. 7.
 Cope, E. D. 1888 BB, pp. 285, 288. (Ctenodus.)
 Williston, S. W. 1899 D, p. 176.
 Woodward, A. S. 1891 A, p. 261.
 Permian; Illinois.

Sagenodus vinslovii (Cope).

- Cope, E. D. 1875 T, p. 410. (Ceratodus.)
 Case, E. C. 1900 A, p. 703, pl. 1, figs. 6a, 6b.
 Cope, E. D. 1877 E, p. 192. (Ptyonodus.)
 1877 N, p. 58. (Ceratodus.)
 1881 K, p. 162. (Ptyonodus.)
 1888 BB, p. 285. (Ptyonodus.)
 Williston, S. W. 1899 D, p. 176.
 Woodward, A. S. 1891 A, p. 262.
 Permian; Illinois.

Gnathorhiza serrata Cope.

- Cope, E. D. 1888 H, p. 629.
 1888 BB, p. 286.
 Permian; Texas.

CERATODONTIDÆ.

- Gill, T. 1872 C, p. 22.
 Cope, E. D. 1889 R, p. 854.
 Gill, T. 1893 A, p. 130.
 Günther, A. 1872 A, p. 554. (Sirenidae, in part.)
 Steinmann and Döderlein 1890 A, p. 555.

- Quenstedt, F. A. 1885 A, p. 294. (Ceratodontia.)
 Van Wijhe, J. W. 1882 A. (Ceratodus.)
 Woodward, A. S. 1891 A, p. 264. (Lepidosirenidae,
 part.)

CERATODUS Agassiz. Type *C. latissimus* Agassiz.

- Agassiz, L. 1843 B (1838), iii, p. 129.
 1844 A.
 Balfour, F. M. 1881 A.
 Barkas, W. J. 1877 A.
 1878 A.
 Beyrich, E. 1860 A, p. 158.
 Bridge, T. W. 1896 A, p. 350.
 Bridge, W. J. 1879 A.
 Brown, C. 1900 A, p. 172.

- Cope, E. D. 1893 N, p. 1061.
 Davidoff, M. 1883 A.
 Dollo, L. 1896 A.
 Gadow, H. 1889 A, p. 458.
 Gadow and Abbott 1896 A.
 Gegenbaur, C. 1872 B.
 1876 A.
 1896 A, figs. 2, 3.
 1898 A, figures.

Günther, A. 1870 A, p. 323.

1871 A.

1871 B.

1872 A.

1880 A, p. 357.

Haeckel, E. 1896 A, p. 284.

Haswell, W. A. 1888 A.

Howes, G. B. 1887 A.

Huxley, T. H. 1876 A.

1876 B, xlii, pp. 389, 411.

1880 B, p. 660.

Klaatsch, H. 1880 A, p. 209.

1896 A, p. 515.

Krefft, G. 1870 A.

Miall, L. C. 1878 A, p. 18.

1878 B.

Mivart, St. G. 1879 A.

Mollier, S. 1893 A, p. 86 *et seq.*

Newberry, J. S. 1876 A, pp. 9-27.

Nicholson and Lydekker 1889 A, p. 958.

Oldham, T. 1859 A.

Pictet, F. J. 1864 A, p. 287.

Pollard, H. B. 1894 B.

Quenstedt, F. A. 1882 A, p. 186.

1885 A, p. 295.

Reis, O. M. 1897 A, p. 132.

Röse, C. 1892 B.

Salenaky W. 1899 A, p. 181.

Semon, R. 1899 A, p. 78.

Stephan, P. 1900 A, p. 307.

Teller, F. 1891 A.

Thacher, J. K. 1877 A.

Tomes, C. S. 1898 A, p. 264.

Traquair, R. H. 1900 B, p. 521.

Van Wijhe, J. W. 1882 A.

Woodward, A. S. 1888 E.

1891 A, p. 264.

1898 B, p. 64.

Zittel, K. A. 1886 A, p. 253.

1890 A, p. 132.

***Ceratodus americanus* Knight.**

Knight, W. C. 1896 A, p. 186, fig. 2.

Jurassic; Wyoming.

***Ceratodus eruciferus*¹ Cope.**

Cope, E. D. 1876 H, p. 259.

1877 G, p. 574. (*Arotus*?)

Woodward, A. S. 1861 A, p. 275.

Cretaceous (*Laramie*); Montana.

***Ceratodus favosus* Cope.**

Cope, E. D. 1884 I, p. 28.

1888 BB, p. 296.

Woodward, A. S. 1891 A, p. 274.

Permian; Texas.

***Ceratodus güntheri* Marsh.**

Marsh, O. C. 1878 A, with figure.

King, C. 1878 A, p. 346.

Marsh, O. C. 1878 G, p. 224.

1897 C, p. 507, fig. 67.

Jurassic; Colorado.

***Ceratodus hieroglyphus*¹ Cope.**

Cope, E. D. 1876 H, p. 260.

1877 G, p. 564. (*Arotus*.)

1885 D, p. 408.

Woodward, A. S. 1891 A, p. 275.

Cretaceous (*Laramie*); Montana.

***Ceratodus robustus* Knight.**

Knight, W. C. 1896 A, p. 186, fig. 1.

Jurassic; Wyoming.

SYNTHETODUS Eastman. Type *S. trisulcatus* Eastman.

Eastman, C. R. 1898 A, p. 111.

***Synthetodus trisulcatus* Eastman.**

Eastman, C. R. 1898 A, p. 112, pl. iv, figs. 1-10.
Upper Devonian; Iowa.

Subclass TELEOSTOMI Owen.

Owen, R. 1866 A, p. 7.

References are here given also to the literature of the groups known as *Ganoidel* and *Teleostei*.

Agassiz, L. 1848 B, II, p. 1. (*Ganoidel*.)

Balfour, F. M. 1882 A, p. 431. (*Ganoidel*.)

Baudelot, E. 1873 A.

1873 B.

Baur, G. 1889 E. (*Teleostei*.)

Beard, J. 1890 A. (*Teleostei*, *Ganoidel*.)

Chamberlin, T. C. 1900 A, p. 411. ("*Teleostomes*.")

Cope, E. D. 1872 C, p. 318 (*Ganoidel*.); p. 396 (*Actinopteri*).

1877 N, p. 56. (*Hyopomata*.)

1877 O, p. 41. (*Hyopomata*.)

1878 A, p. 292. (*Hyopomata*.)

1884 I, p. 46. (*Hyopomata*.)

1884 N, p. 579. (*Hyopomata*.)

Cope, E. D. 1884 HH. (*Hyopomata*.)

1885 G. (*Hyopomata*.)

1887 O, p. 1015.

1889 R, pp. 854, 855.

1890 B.

1891 E.

1891 N, p. 10.

1898 B, pp. 18, 30.

Dean, B. 1896 A, p. 139.

Gadow, H. 1898 A, p. 7.

Gadow and Abbott 1896 A. (*Ganoidel*, *Teleostei*.)

Gegenbaur, C. 1896 A.

1896 A.

Gill, T. 1872 C, p. 1.

1873 B.

1873 D.

1893 A, p. 180. ("*Teleostomes*.")

1896 C, p. 912.

¹ See the genus of *Ichthyodorus* *Eucetus*.

- Goeppert, E. 1895 A, p. 158. (Teleostei.)
 Günther, A. 1871 A, p. 428. (Ganoidei, Teleostei.)
 1872 A, p. 554. (Ganoidei.)
 1880 A, p. 378. (Teleostei.)
 1881 A, p. 688. (Ganoidei, Teleostei.)
 Haeckel, E. 1895 A, p. 244 (Ganoidea); p. 252 (Teleostei).
 Hallmann, E. 1837 A, p. 52.
 Hay, O. P. 1895 A.
 1896 C, p. 342.
 Hollard, H. 1860 A.
 Huxley, T. H. 1856 C. (Teleostei, Ganoidei.)
 1861 B, p. 29. (Teleostei.)
 1872 A, p. 121 (Ganoidei); p. 130 (Teleostei).
 1883 A. (Teleostei.)
 Jordan and Evermann 1896 A, p. 97.
 Klaatsch, H. 1890 A, p. 155.
 1894 A.
 Klein, E. F. 1879 A.
 1881 A.
 1885 A.
 Klein, E. F. 1899 A.
 Kner, R. 1865 A.
 Kölliker, A. 1859 A. (Teleostei, Ganoidei.)
 Köstlin, O. 1844 A.
 Lütken, C. 1868 B. (Ganoidei, Teleostei.)
 1878 A. (Ganoidei.)
 Miall, L. C. 1878 A. (Ganoidei.)
 Müller, J. 1846 C.
 Parker, W. K. 1874 A.
 Reis, O. M. 1895 C, p. 162.
 Röse, C. 1892 A. (Teleostei.)
 Steinmann and Döderlein 1890 A, p. 556.
 Stephan, P. 1900 A. ("Téléostéens," "Ganoïdes.")
 Traquair, R. H. 1877 B. (Ganoidei.)
 Ussow, S. A. 1898 A.
 Vaillaint, L. 1883 A.
 Woodward, A. S. 1891 A, pp. xxi, 816.
 1896 B, p. 69.
 Zittel, K. A. 1890 B, p. 183 (Ganoidei); p. 252 (Teleostei).

Superorder CROSSOPTERYGIA.

- Baur, G. 1896 C, p. 659.
 Bridge, W. J. 1879 A.
 Bridge, T. W. 1889 A, p. 118. (Polypterus.)
 1896 A, p. 541. (Polypterus.)
 1898 A, p. 371.
 Brown, C. 1900 A, p. 172.
 Chamberlin, T. C. 1900 A, p. 411. ("Crossopterygians.")
 Cope, E. D. 1872 C, p. 826.
 1877 N, p. 56.
 1877 O, p. 41.
 1878 A, p. 298.
 1885 G, p. 237.
 1887 O, p. 1017. (Crossopterygia and Rhipidopterygia.)
 1887 S, p. 325.
 1889 R, p. 885. (Crossopterygia and Rhipidopterygia.)
 1890 B.
 1891 B, p. 459 (Rhipidopterygia); p. 460 (Crossopterygia.)
 1891 E, p. 480.
 1891 N, p. 19. (Crossopterygia, Rhipidopterygia.)
 1896 B, p. 30. (Crossopterygia, Rhipidopterygia.)
 Davidoff, M. 1880 B. (Polypterus.)
 Dean, B. 1895 A, p. 148.
 Dollo, L. 1896 A, p. 105.
 Emery, C. 1879 B.
 Gadow, H. 1898 A, p. 7. (Crossopterygii.)
 Gegenbaur, C. 1890 B, p. 104, pl. viii, fig. 6. (Polypterus.)
 1895 A.
 Gegenbaur, C. 1895 B.
 1896 A.
 Gill, T. 1872 C, p. 22.
 1893 A, p. 130.
 Goeppert, E. 1895 A, p. 148.
 Günther, A. 1872 A, p. 555.
 Haeckel, E. 1895 A, p. 249. (Crossopterygii.)
 Hay, O. P. 1899 F, p. 682.
 Howes, G. B. 1887 A, p. 19.
 Huxley, T. H. 1861 B, p. 24. (Crossopterygidae, as suborder.)
 1866 A.
 1872 A, p. 127. (Crossopterygidae.)
 1876 A.
 Jaekel, O. 1890 B, p. 8.
 Klaatsch, H. 1890 A, p. 218.
 1896 A.
 Lütken, C. 1878 A, p. 45. (Crossopteri.)
 Newberry, J. S. 1873 A, p. 255.
 Orr, H. 1885 A.
 Osborn, H. F. 1899 I, p. 158.
 Pollard, H. B. 1892 A. (Polypterus.)
 Reis, O. M. 1897 A, p. 130.
 Ryder, J. 1886 A.
 Steinmann and Döderlein 1890 A, p. 560.
 Traquair, R. H. 1870 A. (Polypterus.)
 1875 C, p. 394.
 1890 B, p. 517. (Crossopterygii.)
 Van Wijhe, J. W. 1882 A, p. 251.
 Woodward, A. S. 1891 A, p. 816.
 1893 C.
 1898 B, p. 69.
 Zittel, K. A. 1890 A, p. 168.
 1896 A, p. 408.

Superorder RHIPIDISTIA Cope.

- Cope, E. D. 1887 O, p. 1017.
 1887 O, p. 1018. (Taxistia.)
 1889 R, p. 855 (Rhipidistia); p. 856 (Taxistia).
 1891 B, p. 460 (Rhipidistia); p. 462 (Taxistia).
 Cope, E. D. 1891 E. (Rhipidistia, Taxistia.)
 1891 N, p. 19. (Rhipidistia, Taxistia.)
 1896 B, pp. 30, 31. (Rhipidistia, Taxistia.)
 Traquair, R. H. 1891 A, p. 127.
 Woodward, A. S. 1891 A, p. 818.
 1896 B, p. 71.

HOLOPTYCHIIDÆ.

Collinge, W. E. 1898 A, p. 5.
 Cope, E. D. 1899 R, p. 856.
 Günther, A. 1890 A, p. 365.
 1881 A, p. 687.
 Lütken, C. 1878 A, p. 84. (Cyclodipterini)
 Nicholson and Lydekker 1889 A, p. 968.
 Owen, R. 1860 E, p. 132.
 Rohon, J. V. 1899 A, p. 41.

Steinmann and Döderlein 1890 A, p. 560.
 Traquair, R. H. 1889 C.
 1900 B, p. 518.
 Woodward, A. S. 1891 A, p. 321.
 1893 E, p. 450.
 1898 B, p. 72.
 Zittel, K. A. 1890 A, p. 176. (Cyclodipterini.)

HOLOPTYCHUS Agassiz. Type *H. nobilissimus* Agassiz.

Agassiz L., 1839, in Murchison's Silur. Syst., p. 599.
 (Holoptychus, misprint.)

1844 A.

1844 B.

Anderson, J. 1860 A.

1861 A.

Collinge, W. E. 1898 A, p. 6.

Egerton, P. H. 1859 A, p. 126.

Emery, C. 1897 B, p. 147.

Huxley, T. H. 1861 B, p. 5, fig. 5.

Jaekel, O. 1894 B, p. 148.

Klaatsch, H. 1890 A, p. 221.

Leidy, J. 1856 B, p. 162.

Lohest, M. 1888 A, p. 121.

McCoy, F. 1853 A.

1855 A, p. 598.

Miller, H. 1859 A, pl. xiv.

Miller, S. A. 1889 A, p. 599.

Newberry, J. S. 1856 A.

Nicholson and Lydekker 1889 A, p. 968.

Pictet, F. J. 1854 A, p. 145.

Quenstedt, F. A. 1852 A, p. 229.

1885 A, p. 350.

Rohon, J. V. 1892 B.

1899 A, p. 41.

Steinmann and Döderlein 1890 A, p. 561.

Traquair, R. H. 1888 B, p. 512.

1900 B, p. 519.

Williamson, W. C. 1849 A, p. 457, pl. xlii, figs. 21-24.

Woodward, A. S. 1891 A, p. 322.

1892 E.

Young, J. 1866 B, p. 601.

Zittel, K. A. 1890 A, p. 178.

Holoptychius americanus Leidy.

Leidy, J. 1856 B, p. 163, pl. xvi, figs. 9, 10; pl. xvii, figs. 1-3 (not fig. 4).

Cope, E. D. 1892 L, p. 222.

1892 X.

1897 C, p. 72.

DeKay, J. E. 1842 B, p. 385. (*H. nobilissimus*.)

Eastman, C. R. 1899 F, pp. 321, 327.

Hall, J. 1843 A, p. 281, text figs. 130.* (*Holoptychus nobilissimus*.)

Lesley, J. P. 1889 A, p. 284, figures. (*H. americanus*, *H. nobilissimus*.)

Lohest, M. 1888 A, p. 139. (*H. nobilissimus*.)

Miller, S. A. 1889 A, p. 599, fig. 1438.

Newberry, J. S. 1878 A, pp. 271, 272.

1889 A, pp. 107, 113, pl. xix, figs. 12, 13.

Redfield, W. C. 1841 A, p. 24. (*H. nobilissimus*.)

Whitfield and Hovey 1900 A, p. 348.

Williams, H. S. 1887 A, pp. 27, 28. ("*Holoptychius*.")

Woodward, A. S. 1891 A, p. 326.

Young, J. 1866 B, p. 599.

Devonian (Catskill, Ithaca); Pennsylvania, New York.

Holoptychius flosus Cope.

Cope, E. D. 1892 L, p. 223, pl. vii, fig. 3.

1897 C, p. 72.

Devonian (Chemung); Pennsylvania.

Holoptychius flabellatus Cope.

Cope, E. D. 1897 C, p. 75, pl. ii, fig. 3.

Devonian (Catskill?); Pennsylvania.

Holoptychius giganteus Agassiz.

Agassiz, L. 1844 B, pp. 78, 140, pl. xxiv, figs. 3-10.

Cope, E. D. 1892 L, p. 222.

1897 C, p. 72.

Lohest, M. 1888 A, p. 146, pl. vi, figs. 2, 3; pl. vii, figs. 5, 6.

McCoy, F. 1855 A, p. 594 (*H. giganteus*); p. 596 (*H. princeps*).

Newberry, J. S. 1889 A, p. 101, pl. xix, figs. 15, 16.

Woodward, A. S. 1891 A, p. 325.

Devonian; Europe: (Catskill?); Pennsylvania.

Holoptychius granulatus Newb.

Newberry, J. S. 1889 A, p. 100, pl. xx, fig. 9.

Whitfield and Hovey, 1900 A, p. 348.

Woodward, A. S. 1891 A, p. 331.

Devonian (Chemung); Pennsylvania?.

Holoptychius hallii Newb.

Newberry, J. S. 1889 A, p. 114, pl. xx, figs. 10, 10a.

Cope, E. D. 1897 C, p. 72.

Woodward, A. S. 1891 A, p. 326.

Devonian (Catskill); New York.

Holoptychius latus Cope.

Cope, E. D. 1897 C, p. 74, pl. ii, fig. 2. [*Holoptychius* (Glyptolepis).]

Devonian (Catskill?); Pennsylvania.

Holoptychius ? pustulosus Newb.

Newberry, J. S. 1889 A, p. 100, pl. xx, figs. 11, 11a.

Woodward, A. S. 1891 A, p. 331.

Devonian (Chemung); Pennsylvania.

Holoptychius quebecensis (Whit-eaves).

Whit-eaves, J. F. 1889 A, p. 77, pl. v, fig. 4. (Glyptolepis.)

Dana, J. D. 1896 A, p. 618, fig. 970.

- Traquair, R. H. 1890 A, p. 17.
 1893 C, p. 265. (Gyrolepis.)
 1893 D, p. 123. (Glyptolepis.)
 Whiteaves, J. F. 1881 A, p. 495. (Glyptolepis
 microlepidotus, not of Agassiz.)
 1883 A, p. 354. (Glyptolepis microlepidotus,
 not of Agassiz.)
 1883 B, p. 162. (Glyptolepis.)
 1881 C, pp. 32, 33. (Glyptolepis microlepi-
 dotus and G. "near leptopterus.")
 Woodward, A. S. 1891 A, p. 336.
 Upper Devonian; Province of Quebec, Canada.
Holoptychius ? radiatus Newb.
 Newberry, J. S. 1889 A, p. 115, pl. xx, figs. 12-14.

ERIPTYCHIUS Walcott. Type *E. americanus* Walcott.

- Walcott, C. D. 1892 A, p. 167.
 Chamberlin, T. C. 1900 A, p. 401. (No name.)
Eriptychius americanus Walcott.
 Walcott, C. D. 1892 A, p. 167, pl. iv, figs. 5-11.

- Cope, E. D. 1897 C, p. 72.
 Whitfield and Hovey 1900 A, p. 348.
 Woodward, A. S. 1891 A, p. 331.
 Devonian (Catskill?); Pennsylvania.

Holoptychius serrulatus Cope.

- Cope, E. D. 1897 C, p. 71, pl. ii, fig. 1.
 Devonian (Catskill?); Pennsylvania.

Holoptychius tuberculatus Newb.

- Newberry, J. S. 1889 A, p. 101, pl. xix, fig. 14.
 Cope, E. D. 1897 C, p. 73.
 Woodward, A. S. 1891 A, p. 331.
 Devonian (Chemung); Pennsylvania.

DENDRODUS Owen. Type *D. biporcatus* Owen.

- Owen, R. 1841 F, p. 4.
 Agassiz, L. 1844 B, pp. 61, 84, 144. (Lamnodus, Den-
 drodus.)
 Eichwald, E. 1860 A, p. 1558.
 Lohest, M. 1883 A, p. 118.
 McCoy, F. 1855 A, p. 597.
 Nicholson and Lydekker 1889 A, p. 969.
 Owen, R. 1845 B, pp. 171, 175.
 1860 E, p. 133.
 Pander, C. H. 1860 A, pp. 27, 53.
 Pictet, F. J. 1854 A, p. 147.
 Quenstedt, F. A. 1852 A, p. 229.

- Quenstedt, F. A. 1885 A, p. 351.
 Rohon, J. V. 1889 B, p. 1-52, pls. 1, 11.
 Traquair, R. H. 1889 C, p. 490.
 Trautschold, H. 1880 C, p. 139.
 1889 B.
 Woodward, A. S. 1891 A, p. 338.
 Zittel, K. A. 1890 A, p. 177.

Dendrodus arisaigensis Whiteaves.

- Whiteaves, J. F. 1898 A, p. 401, fig. 1.
 Silurian or Devonian; Nova Scotia.

APEDODUS Leidy. Type *A. priscus* Leidy.

- Leidy, J. 1856 S, p. 164.
 Miller, S. A. 1889 A, p. 587.
 Woodward, A. S. 1891 A, p. 322. (Syn.? of Holop-
 tychius.)
 Young, J. 1866 B. (Syn. of Rhizodus.)

Apedodus priscus Leidy.

- Leidy, J. 1856 S, p. 165, pl. xvii, figs. 5-7.
 Newberry, J. S. 1889 A, p. 108.
 Woodward, A. S. 1891 A, p. 340.
 Devonian (Catskill); Pennsylvania.

MEGALICHTHYIDÆ nom. nov.

The following authors denominate this family
Rhizodontidæ.

- Collinge, W. E. 1896 A, p. 5.
 Nicholson and Lydekker 1889 A, p. 969.
 Steinmann and Döderlein 1890 A, p. 561.
 Traquair, R. H. 1881 B, p. 179.

- Traquair, R. H. 1888 B, p. 514.
 1891 A, p. 127.
 1900 B, p. 517.
 Woodward, A. S. 1891 A, p. 346.
 1898 B, p. 74.

MEGALICHTHYS Agassiz and Hibbert. Type *M. hibberti* Agassiz and Hibbert.

Agassiz and Hibbert, in Hibbert, S. 1836 A, p. 202.
 Unless otherwise indicated, the name *Rhi-
 zodus* of Owen is employed for this genus by the
 following writers. *Megalichthys* of Agassiz and
 Hibbert has, however, priority.

- Agassiz, L. 1835 A, p. 646. (Megalichthys.)
 1844 B, p. 69.
 Atthey, T. 1877 A.

- Barkas, T. P. 1873 A, p. 41.
 Eichwald, E. 1860 A, p. 1571. (Holoptychius.)
 Gaudry, A. 1883 A, p. 236.
 Hancock and Atthey 1868 A, p. 346.
 Hay, O. P. 1899 E, p. 786.
 Klaatsch, H. 1890 A, p. 220.
 McCoy, F. 1855 A, p. 612.
 Miall, L. C. 1875 B, fig. 1.

- Miller, S. A. 1889 A, p. 611.
 Newberry, J. S. 1868 A, p. 145.
 1889 A, pp. 192, 340.
 Newberry and Worthen 1866 A, p. 18.
 Nicholson and Lydekker 1889 A, p. 970.
 Owen, R. 1845 B (1840), p. 66, pls. xxxv-xxxvii.
 (Rhizodus; type *Megalichthys hiberni* Agassiz and Hibbert.)
 Roemer, F. 1865 A.
 Steinmann and Döderlein 1890 A, p. 561.
 Stock, T. 1881 B, p. 77.
 Traquair, R. H. 1875 B.
 1877 C.
 1891 A, p. 127.
 Woodward, A. S. 1891 A, p. 342.
 1896 B, p. 74.
 Woodward and Sherborn 1890 A, p. 178.
 Young, J. 1866 B, p. 599.
 Zittel, K. A. 1890 A, p. 182.

Megalichthys anceps (Newb.).

- Newberry, J. S.* 1888 C. (Rhizodus.)
Dana, J. D. 1888 A. (Rhizodus.)
Newberry, J. S. 1889 A, p. 191, pl. xliii, fig. 1. (Rhizodus.)
Woodward, A. S. 1891 A, p. 346. (Rhizodus.)
 Subcarboniferous (St. Louis); Illinois.

Megalichthys angustus Newb.).

- Newberry, J. S.* 1856 B, p. 99. (Rhizodus.)

- Hay, O. P.* 1899 E, p. 787.
Hitchcock, C. H. 1868 B. (Rhizodus.)
Lealey, J. P. 1889 A, p. 875, figure. (Rhizodus.)
Newberry, J. S. 1868 A, p. 145. (Rhizodus.)
 1873 A, p. 342, pl. xxxix, fig. 6. (Rhizodus.)
 1889 A, p. 192. (Rhizodus.)
Woodward, A. S. 1891 A, p. 348. (Rhizodus.)
 Coal-measures; Ohio.

Megalichthys incurvus (Newb.).

- Newberry, J. S.* 1856 B, p. 99. (Rhizodus.)
Hay, O. P. 1899 E, p. 787.
Woodward, A. S. 1891 A, p. 348. (Rhizodus.)
 Coal-measures; Ohio.

Megalichthys lancifer (Newb.).

- Newberry, J. S.* 1856 B, p. 99. (Rhizodus.)
Dawson, J. W. 1868 D, p. 11. (Rhizodus.)
 1868 A, p. 210, fig. 56a. (R. lancifer?)
 1878 A, p. 210, fig. 56a. (Rhizodus.)
 1894 A, p. 269. (Rhizodus.)
Hay, O. P. 1899 E, p. 787.
Lealey, J. P. 1889 A, p. 876, figure. (Rhizodus.)
Newberry, J. S. 1873 A, p. 342, pl. xxxix, fig. 9. (Rhizodus.)
 1889 A, p. 192. (Rhizodus.)
Woodward, A. S. 1891 A, p. 348. (Rhizodus.)
 Coal-measures; Ohio.

RABDIOLEPIS Emmons. Type *R. speciosa* Emmons.

- Emmons, E.* 1867 A, p. 45.
 1860 A, p. 188.
Rabdiolepis speciosa Emmons.
Emmons, E. 1887 A, p. 45, fig. 17.
Cope, E. D. 1875 V, p. 30. (Rabdiolepis.)

- Emmons, E.* 1860 A, p. 188, fig. 161.
Wheatley, C. M. 1861 A, p. 44. (Radiolepis.)
Woodward, A. S. 1891 A, p. 354.
 Triassic (Chatham); North Carolina, Pennsylvania?.

STREPSODUS Young. Type *Holoptychius sauroides* Binney.

- Young, J.* 1866 B, p. 602.
Barkas, T. P. 1873 A, p. 32, figs. 113-119 (Strepsodus); pp. 75, 94, figs. 194, 223, 224 (Labyrinthodontosaurus).
Hancock and Atthey 1868 A, p. 363.
 1870 A.
Ward, J. 1890 A, p. 160.
Woodward, A. S. 1891 A, p. 348.
Young, J. 1856 B, p. 601, fig. 7. (Dendroptychius.)

Strepsodus arenosus Hay.

- Hay, O. P.* 1900 A, p. 113, fig. 3.
 Subcarboniferous; Pennsylvania.

Strepsodus dawsoni Hay.

- Hay, O. P.* 1900 A, p. 114.

- Dawson, J. W.* 1868 A, p. 210, fig. 56b. (Rhizodus lancifer, part.)
 1878 A, p. 210, fig. 56b. (R. lancifer, part.)
 Coal-measures; Nova Scotia.

Strepsodus hardingi (Dawson).

- Dawson, J. W.* 1868 A, p. 255, fig. 77a-d. (Rhizodus.)
Dana, J. D. 1888 A. (Rhizodus.)
Dawson, J. W. 1878 A, p. 255, fig. 77a-d. (Rhizodus.)
Hay, O. P. 1900 A, p. 111.
Lealey, J. P. 1889 A, p. 876, figure. (Rhizodus.)
Woodward, A. S. 1891 A, p. 353.
 Subcarboniferous; Nova Scotia.

RHIZODOPSIS Young. Type *Holoptychius granulatus* Salter.

- Young, J.* 1866 B, p. 596.
Barkas, T. P. 1873 A, p. 23, figs. 59-69 (Rhizodopsis); p. 38, figs. 143, 144 (Orthognathus, type *O. reticulosus*).
Hancock and Atthey 1868 A, p. 349.

- Nicholson and Lydekker* 1889 A, p. 970.
Owen R. 1867 B, p. 325 (Dittodus, part); p. 354 (Ganalodus part); p. 366 (Characodus); p. 370 (Gastrodus).
Roemer, F. 1865 A. (Rhizodus, part.)

- Traquair, R. H. 1881 B, p. 169.
 Ward, J. 1890 A, p. 161, pl. viii, figs. 5-7.
 Williamson, W. C. 1849 A, p. 457, pl. xlii, figs. 21-23. (Holoptychius, part.)
 Woodward, A. S. 1891 A, p. 354.
 Young, J. 1866 B, p. 596, fig. 8.

Zittel, K. A. 1890 A, p. 181.

Rhizodopsis? mazonius Hay.

Hay, O. P. 1900 A, p. 110.
 Coal-measures, Illinois.

Cælosteus Newb. Type *C. ferox* Newb.

- Newberry, J. S. 1887 B.
 Cope, E. D. 1890 H.
 Miller, S. A. 1892 A, p. 714.
 Newberry, J. S. 1889 A, p. 188.
 Woodward, A. S. 1891 A, p. 346.

Cælosteus ferox Newb.

Newberry, J. S. 1887 B.
 Cope, E. D. 1888 P.
 Newberry, J. S. 1889 A, p. 190, pl. xxxv, figs. 1-4.
 Woodward, A. S. 1891 A, p. 346.
 Subcarboniferous (St. Louis): Illinois.

Sauripteris Hall. Type *S. taylori* Hall.

- Hall, J. 1843 A, p. 282.
 1840, Ann. Rep. Geol. Surv., N. Y., 4th dist., p. 453. (Sauritolepis, nom. nud.)
 1843 A, p. 282, footnote. (Sauritolepis.)
 Newberry, J. S. 1873 A, pp. 271, 272. (Holoptychius? and Bothriolepis?)
 Woodward, A. S. 1890 A, p. 393.
 1891 A, p. 364. (Sauripterus.)

Sauripteris taylori Hall.

Hall, J. 1843 A, p. 282, text figs. 130¹, 131.

Newberry, J. S. 1873 A, pp. 271, 272. (Holoptychius? and Bothriolepis?)
 1889 A, p. 113. (Sauripterus.)
 Lesley, J. P. 1889 A, p. 94 (Bothriolepis); p. 286, figure (Holoptychius); Errata, p. xi (Sauripteris).
 Whiteaves, J. F. 1880 A, p. 133.
 Whitfield and Hovey, 1900 A, p. 348.
 Williams, H. S. 1887 A, p. 101. (Sauripterus.)
 Woodward, A. S. 1890 A, p. 393.
 1891 A, p. 365.
 Devonian (Catskill); Pennsylvania.

Eusthenopteron Whiteaves. Type *E. foordii* Whiteaves.

- Whiteaves, J. F. 1881 A, p. 496.
 Miller, S. A. 1889 A, p. 597.
 Nicholson and Lydekker 1889 A, p. 970.
 Traquair, R. H. 1900 B, p. 517.
 Whiteaves, J. F. 1883 A, p. 354.
 1883 B, p. 161.
 1881 C, p. 30.
 1899 A, p. 411.
 Woodward, A. S. 1891 A, p. 361.
 1898 B, p. 76.
 Zittel, K. A. 1890 A, p. 180.
Eusthenopteron foordii Whiteaves.
 Whiteaves, J. F. 1881 A, p. 496.
 Bridge, T. W. 1896 A, p. 588.
 Cope, E. D. 1892 N, p. 280, fig. 1.

Dana, J. D. 1896 A, p. 618, fig. 971.
 Dean, B. 1896 A, p. 152, fig. 154.
 Jaekel, O. 1892 A, p. 91.
 1896 A, p. 8.
 Traquair, R. H. 1890 A, p. 17.
 1893 C, p. 266.
 1893 D, p. 124.
 Whiteaves, J. F. 1883 A, p. 354.
 1883 B, p. 161.
 1881 C, p. 31, text fig.
 1889 A, p. 78, pl. v, fig. 5; pls. vi, vii; p. 91, pl. x, fig. 1.
 Woodward, A. S. 1891 A, p. 362.
 1898 B, p. 77, fig. 58.
 Upper Devonian; Province of Quebec, Canada.

OSTEOLEPIDÆ.

- Agassiz, L. 1843 B (1835), ii, p. 117. (Osteolepis.)
 1844 B, p. 50. (Osteolepis.)
 Collinge, W. E. 1898 A, p. 5.
 Cope, E. D. 1889 R, p. 856.
 Huxley, T. H. 1861 B. (Saurodipterini.)
 Klaatsch, H. 1896 A, p. 818. ("Rhombodipterinen.")
 Lütken, C. 1873 A, p. 33. (Rhombodipterini.)
 McCoy, F. 1856 A, p. 585. (Saurodipteridæ.)
 Nicholson and Lydekker 1889 A, p. 971. (Rhombodipterini.)

Pander, C. H. 1860 A. ("Saurodipterinen.")
 Rohon, J. V. 1892 A, p. 29.
 1899 B, p. 13. ("Osteolepiden.")
 Steinmann and Döderlein 1890 A, p. 562. (Rhombodipteridæ.)
 Traquair, R. H. 1891 A, p. 127.
 1900 B, p. 517.
 Woodward, A. S. 1891 A, p. 367.
 1898 B, p. 77.
 Zittel, K. A. 1890 A, p. 183. (Rhombodipterini.)

PARABATRACHUS Owen. Type *P. colei* Owen.

Owen, R. 1858 D, p. 67.

Unless otherwise indicated the following authorities use for this genus the name *Megalichthys*. Nevertheless, the name *Megalichthys* was originally based on materials belonging to a different genus and species. See p. 359.

Agassiz, L. 1843 B, li, pt. ii, pp. 89, 154. (Not *Megalichthys* of 1836.)

Barkas, T. P. 1873 A, p. 35.

Cope, E. D. 1880 A, p. 52. (Ectosteorhachis.)

1883 H, p. 628. (Ectosteorhachis.)

1891 B, p. 457.

Gaudry, A. 1883 A, p. 234.

Hay, O. P. 1899 E, p. 788. (Parabatrachus.)

Huxley, T. H. 1861 B, p. 12.

1863 A, p. 67. (Parabatrachus.)

Klaatsch, H. 1890 A, p. 220.

McCoy, F. 1848 A, p. 3. (Centrodus, type *C. striatulus*, preoccupied.)

Miall, L. C. 1884 A.

Miller, S. A. 1889 A, p. 596. (Ectosteorhachis.)

Newberry, J. S. 1873 A, pp. 256, 343.

1889 A, p. 215.

Nicholson and Lydekker 1889 A, pp. 970, 972.

Pictet, F. J. 1854 A, p. 179.

Quenstedt, F. A. 1862 A, p. 227.

1885 A, p. 348.

Roemer, F. 1865 A.

Traquair, R. H. 1881 B, p. 178.

1884 A.

Wellburn, E. D. 1900 A, p. 52.

Williamson, W. C. 1849 A, p. 456, pl. xlii, figs. 16-19.

Woodward, A. S. 1891 A, p. 378.

1892 B, p. 238.

Young, J. 1866 B.

Zittel, K. A. 1890 A, p. 184.

Parabatrachus ciceronius (Cope).

Cope, E. D. 1883 H, p. 628. (Ectosteorhachis.)

1883 P. (Ectosteorhachis.)

1888 BB, p. 286. (Ectosteorhachis.)

1891 B, p. 457. (Megalichthys.)

Hay, O. P. 1899 E, p. 788.

Wellburn, E. D. 1900 A, p. 60. (Megalichthys.)

Woodward, A. S. 1891 A, p. 388. (Megalichthys.)

Permian; Texas.

Parabatrachus macropomus (Cope).

Cope, E. D. 1892 L, p. 226, pl. viii. (Megalichthys.)

GLYPTOPOMUS Agassiz. Type *G. minor* Agassiz.

Agassiz, L. 1844 B, p. 57.

Huxley, T. H. 1861 B, p. 4.

1866 A, p. 3.

Pictet, F. J. 1854 A, p. 193.

Woodward, A. S. 1891 A, p. 389.

Cope, E. D. 1894 F, pl. xix, fig. 1. (Megalichthys.)

Hay, O. P. 1899 E, p. 788.

Carboniferous; Kansas.

Parabatrachus maxillaris (Agassiz).

This species is known in all scientific works as *Megalichthys hibberti*. The earliest specific name available is, however, *maxillaris*. Most of the authors here cited use the name *M. hibberti*.

Agassiz, L. 1843 B, li, pt. ii, pp. 89-96, pls; lxiii, lxiii a, lxiv (*M. hibberti*); p. 96 (*M. maxillaris*).

Cope, E. D. 1880 A, p. 58.

Fleming, J. 1835, Edinb. New Phil. Jour., xix, p. 314, pl. iv, figs. 1-3. (*Ichthyolithus clackmannensis*.)

Hay, O. P. 1899 E, p. 788. (*P. maxillaris*.)

Miall, L. C. 1884 A, p. 347, figs. 1-4, 6.

Newberry, J. S. 1873 A, p. 343, pl. xi, fig. 3. ("Megalichthys.")

1889 A, p. 215.

Traquair, R. H. 1884 A.

Ward, J. 1890 A, p. 162, pl.

Wellburn, E. D. 1900 A, p. 52, pls. xiv-xvii, xix.

Whiteaves, J. F. 1881 D, p. 86. (*Psammodus bretonensis*.)

Williamson, W. C. 1849 A, p. 450, pl. xli, fig. 15; pl. xlii, figs. 16-19.

Woodward, A. S. 1891 A, pp. 378, 388.

Woodward and Sherborn 1890 A, p. 117.

Young, J. 1866 B.

Coal-measures; Great Britain, Cape Breton Island. Scales and bones not distinguishable as different have been found in Ohio and in Nova Scotia.

Parabatrachus nitidus (Cope).

Cope, E. D. 1880 A, p. 52. (Ectosteorhachis.)

1888 B B, p. 286. (*E. nitidus*.)

1891 B, p. 457, pl. xxxii, figs. 8, 9. (Megalichthys.)

1891 C. (Megalichthys.)

Hay, O. P. 1899 E, p. 788.

Woodward, A. S. 1891 A, p. 388. (Megalichthys.)

Permian; Texas.

Glyptopomus sayrei Newb.

Newberry, J. S. 1878 A, p. 189.

1889 A, p. 116, pl. xviii, fig. 1.

Woodward, A. S. 1891 A, p. 390.

Devonian (Catskill); Pennsylvania.

ONYCHODONTIDÆ.

Woodward, A. S. 1891 A, p. 391.

| Rohon, J. V. 1899 A, p. 60.

¹ *Ichthyolithus* was not regarded as a generic name.

ONYCHODUS Newb. Type *O. sigmoides* Newb.

- Newberry, J. S. 1857 C, p. 124.
 Claypole, E. W. 1896 B, p. 354.
 Eastman, C. R. 1900 B, p. 36.
 1900 C, p. 392.
 Jaekel, O. 1893 B, p. 175.
 Miller, S. A. 1899 A, p. 602.
 Newberry, J. S. 1857 A, p. 148.
 1862 A, p. 77, fig. 3.
 1870 B, p. 154.
 1873 A, pp. 256, 264, 265, 273, 296.
 1883 B, p. 118.
 1889 A, p. 53.
 Newton, E. T. 1992 A.
 Nicholson and Lydekker 1889 A, p. 968.
 Rohon, J. V., 1899 A, p. 60.
 Woodward, A. S. 1888 D.
 1889 B.
 1890 A, p. 391.
 1891 A, p. 392.
 Zittel, K. A. 1890 A, p. 179.

Onychodus ortonii Newb.

- Newberry, J. S. 1889 A, p. 71, pl. xix, figs. 1, 1a.
 1888 B, p. 118. (Insufficient description.)
 Woodward, A. S. 1891 A, p. 393.
 Devonian (Huron shale); Ohio.

Onychodus sigmoides Newb.

- Newberry, J. S. 1857 C, p. 124. (*O. sigmoides*, *O. hopkinsi*.)
 Eastman, C. R. 1899 B, pp. 278, 287.
 1899 F, p. 321, figs. 2, 3.
 Hitchcock, Fanny R. 1888 A.
 Leasley, J. P. 1889 A, p. 497, figures.
 1892 A, pl. cl.
 Miller, S. A. 1899 A, p. 603, figs. 1150, 1151.
 Newberry, J. S. 1862 A, p. 77, fig. 3. (*O. hopkinsi*.)
 1873 A, pp. 265, 299, pl. xxvi, figs. 1-5; pl. xxvii, figs. 1, 2 (*O. sigmoides*); pp. 270, 302 (*O. hopkinsi*.)
 1888 B, p. 118. (*O. sigmoides*, *O. hopkinsi*.)
 1889 A, p. 56, pl. xxxvi, figs. 1-4; pl. xxxvii, figs. 1-10 (*O. sigmoides*); p. 99 (*O. hopkinsi*.)
 Woodward, A. S. 1891 A, p. 329 (*O. sigmoides*); p. 393 (*O. hopkinsi*.)
 Devonian (Corniferous); Ohio, New York: (Chemung); New York.
O. sigmoides and *O. hopkinsi* are united on the authority of Dr. C. R. Eastman.

Onychodus sp. indet.

- Whiteaves, J. F. 1892 A, p. 356. (No description.)
 Devonian; Manitoba.

Order ACTINISTIA Cope.

- Cope, E. D. 1887 O, p. 1017.
 1889 B, p. 856.
 1891 B, p. 460.
 1891 E.

- Cope, E. D. 1891 N, p. 19.
 Woodward, A. S. 1891 A, p. 394.
 1898 B, p. 78.

CÆLACANTHIDÆ.

- Agassiz, L. 1843 B, 18 il, pt. ii, p. 168. ("Cælacanthæ.")
 1844 B, p. 59. ("Cælacanthæ.")
 1846 A, p. 45. ("Cælacanthæ.")
 Cope, E. D. 1877 N, p. 56.
 1878 A, p. 293.
 1889 B, p. 855.
 Dollo, L. 1896 A.
 Gegenbaur, C. 1896 B.
 Günther, A. 1872 A, p. 559.
 1890 A, p. 365.
 1891 A, p. 687.
 Haeckel, E. 1896 A, p. 136. (Cælacanthini.)
 Huxley, T. H. 1861 B, p. 15. (Cælacanthini.)
 1866 A. (Cælacanthini.)

- Huxley, T. H. 1872 A, p. 128. (Cælacanthini.)
 King, W. 1850 A, p. 235.
 McCoy, F. 1856 A, p. 589. (Cælacanthi.)
 Newberry, J. S. 1873 A, p. 255.
 Nicholson and Lydekker 1889 A, p. 972.
 Owen, R. 1860 E, p. 131. (Cælacanthi.)
 Pictet, F. J. 1854 A, p. 141. ("Cælacanthæ.")
 Reiss, O. M. 1888 A.
 Steinmann and Döderlein 1890 A, p. 562.
 Vetter, B. 1881 A, p. 9. (Cælacanthini.)
 Willemoes-Suhm, R. 1869 A.
 Woodward, A. S. 1891 A, p. 394.
 1892 E.
 1898 B, p. 78.
 Zittel, K. A. 1890 A, p. 171. (Cælacanthini.)

CÆLACANTHUS Agassiz. Type *C. granulatus* Agassiz.

- Agassiz, L. 1843 B, Feuille (1836), p. 83; il (1843), pt. ii, p. 170.
 1843 B, il, pt. ii, p. 178. (Hoplopygus.)
 1844 A.
 Cope, E. D. 1873 O, p. 341. (Conchlopis, with *C. liferus* as type = Cælacanthus elegans.)
 Heckel, J. J. 1850 A, p. 362.
 Huxley, T. H. 1861 B, p. 16.
 1866 A, p. 8.

- Miller, S. A. 1889 A, p. 592.
 Newberry, J. S. 1868 A, p. 144.
 1873 A, pp. 285, 337.
 1873 B. (On Conchlopis.)
 1874 E, p. 76. (On Conchlopis.)
 Nicholson and Lydekker 1889 A, p. 973.
 Pictet, F. J. 1854 A, p. 141.
 Reiss, O. M. 1888 A, p. 71. (Rhabdoderma.)
 Vetter, B. 1881 A, p. 9.

Ward, J. 1890 A, p. 168.
 Winckler, T. C. 1871 A.
 Woodward, A. S. 1891 A, p. 399.
 Woodward and Sherborn 1890 A, p. 39.
 Zittel, K. A. 1890 A, p. 171.

***Coelacanthus elegans* Newb.**

Newberry, J. S. 1856 B, p. 98.
 Cope, E. D. 1873 O, p. 342. (*Conchlopsis filiferus*,
C. anguliferus.)
 1873 Q, p. 418.
 Dean, B. 1895 A, p. 153, fig. 155.
 Hancock and Atthey 1872, p. 256, pl. xvii, fig. 4.
 (C. lepturus.)
 Hay, O. P. 1900 A, p. 116.
 Huxley, T. H. 1866 A, pp. 14, 20, pl. v, figs. 1, 2, 4
 (C. elegans); p. 16, pl. ii, figs. 1-4; pl. iii, figs.
 1-3; pl. iv, figs. 1-6 (C. lepturus).
 Miller, S. A. 1889 A, p. 592, fig. 1112.
 Newberry, J. S. 1873 A, p. 339, pl. xl, figs. 1-1d.
 1873 B.
 1873 D, p. 30.
 1874 E, p. 76.

Newberry, J. S. 1899 A, p. 213.
 Woodward, A. S. 1891 A, p. 408.
 Coal-measures; Ohio.

***Coelacanthus ornatus* Newb.**

Newberry, J. S. 1856 B, p. 98.
 Huxley, T. H. 1866 A, p. 14.
 Newberry, J. S. 1873 A, p. 340.
 1899 A, p. 227.
 Reis, O. M. 1888 A, p. 5. (Rhabdoderma.)
 Woodward, A. S. 1891 A, p. 408.
 Coal-measures; Ohio.

***Coelacanthus robustus* Newb.**

Newberry, J. S. 1856 B, p. 98.
 Hay, O. P. 1900 A, p. 115.
 Huxley, T. H. 1866 A, p. 14.
 Newberry, J. S. 1873 A, p. 341, pl. xl, figs. 2, 2a.
 1899 A, p. 228.
 Reis, O. M. 1888 A, pp. 5, 71. (Rhabdoderma.)
 Woodward, A. S. 1891 A, p. 406.
 Coal-measures; Ohio, Illinois.

PEPLORHINA Cope. Type *P. anthracina* Cope.

Cope, E. D. 1873 O, p. 343.
 1873 Q, p. 418.
 1875 D, p. 409.
 Newberry, J. S. 1874 E, p. 76.
 Nicholson and Lydekker 1889 A, p. 969.
 Woodward, A. S. 1891 A, p. 408.

***Peplorhina anthracina* Cope.**

Cope, E. D. 1873 O, p. 343.
 1873 Q, p. 418.
 1875 D, p. 410, pl. xxxv, fig. 6; pl. xli, figs. 4-6.
 Lesley, J. P. 1889 A, p. 622, figures.
 Newberry, J. S. 1873 B.
 1874 E, p. 76.
 Woodward, A. S. 1891 A, p. 408.
 Coal-measures; Ohio.

***Peplorhina arctata* Cope.**

Cope, E. D. 1877 N, p. 54.
 Case, E. C. 1900 A, p. 707.
 Cope, E. D. 1882 B, p. 461. ("Theromorphous
 saurian.")
 Woodward, A. S. 1891 A, p. 408.
 Permian; Illinois.

***Peplorhina exanthematica* Cope.**

Cope, E. D. 1873 O, p. 342. (*Conchlopsis*.)
 1873 Q, p. 418.
 Newberry, J. S. 1873 B. (Syn. of *P. anthracina*.)
 1874 E, p. 76. (Syn. of *P. anthracina*.)
 Woodward, A. S. 1891 A, p. 408.
 Coal-measures; Ohio.

DIPLURUS Newb. Type *D. longicaudatus* Newb.

Newberry, J. S. 1878 B.
 Dean, B. 1893 D.
 1895 A, p. 153.
 Newberry, J. S. 1888 A, p. 70.
 Nicholson and Lydekker 1889 A, p. 973.
 Woodward, A. S. 1891 A, p. 409.
 Zittel, K. A. 1890 A, p. 174.

***Diplurus longicaudatus* Newb.**

Newberry, J. S. 1878 B.
 Bridge, T. W. 1896 A, p. 568.
 Dean, B. 1893 B.
 1895 A, p. 154, fig. 156.
 Newberry, J. S. 1888 A, p. 74, pl. xx, figs. 1-5.
 Woodward, A. S. 1891 A, p. 409.
 Triassic; New Jersey, Connecticut.

Superorder ACTINOPTERI Cope.

Cope, E. D. 1872 C, p. 325.
 1877 N, p. 56.
 1877 O, p. 41.
 1878 A, p. 298.
 1887 O, p. 1017. (*Actinopterygia*.)
 1889 R, p. 855. (*Actinopterygia*.)
 1891 B, p. 459. (*Actinopterygia*.)
 1891 N, pp. 19, 21. (*Actinopterygia*.)

Cope, E. D. 1898 B, pp. 30, 33. (*Actinopterygia*.)
 Gadow, H. 1898 A, p. 7. (*Actinopterygia*.)
 Hay, O. P. 1899 F, p. 682.
 Reis, O. M. 1897 A, p. 130. ("Actinopterygier.")
 Woodward, A. S. 1891 A, p. 423.
 1896 A.
 1898 B, p. 81. (*Actinopterygia*.)

Order CHONDROSTEI Müller.

Müller, J. 1846 C.

Agassiz, L. 1848 B (1838), ii, pt. 1, pp. 1, 2, 3, 10.
("Lepidoides," in part; "Sauroides," in part.)

Beard, J. 1890 A, p. 182.

Bridge, W. J. 1879 A.

Cope, E. D. 1880 P. (Lysopteri.)

1872 C, p. 327.

1877 N, p. 57.

1877 O, p. 41.

1878 A, p. 293.

1887 O, p. 1017. (Podopterygia, in part.)

1889 R, pp. 855, 856 (Podopterygia, in part);
p. 857 (Lysopteri).1891 B, p. 459 (Podopterygia, in part); p.
460 (Lysopteri).

1891 E. (Podopterygia, in part; Lysopteri.)

1891 N, pp. 19, 20. (Podopterygia.)

1898 B, pp. 30, 32. (Podopterygia.)

Egerton, P. G. 1859 B.

Gadow, H. 1898 A, p. 8.

Gegenbaur, C. 1898 A.

Gill, T. 1872 C, p. 22. (Chondroganoidel.)

1898 A, p. 130.

Goette, A. 1878 A, p. 442.

Günther, A. 1870 A, p. 332.

1880 A, p. 860.

1881 A, p. 687.

Haeckel, E. 1895 A, p. 249.

Huxley, T. H. 1872 A, p. 128.

Jordan and Evermann 1895 A, p. 102.

Klaatsch, H. 1890 A, p. 146.

Ryder, J. A. 1886 A.

Stannius, H. 1854 A.

Thacher, J. K. 1877 A.

1877 B.

Traquair, R. H. 1879 A, p. 380. (Acipenseroidel.)

1877 B.

1887 A.

Woodward, A. S. 1889 H, p. 43.

1891 A, pp. v, 423.

1895 A, p. v.

1898 B, p. 82.

Zittel, K. A. 1890 A, p. 163 (Chondrostel); p. 186
(Heterocerel).

Zograf, N. 1896 A.

PALÆONISCIDÆ.

Bridge, W. J. 1879 A, p. 723.

Cope, E. D. 1889 R, p. 858.

1891 E.

Fritsch, A. 1895 A, pp. 83, 122.

Günther, A. 1880 A, p. 869.

1881 A, p. 687.

Kosmak, G. W. 1895 A, p. 20.

Nicholson and Lydekker 1889 A, p. 976.

Owen, R. 1860 E, p. 136.

Steinmann and Döderlein 1890 A, p. 565.

Traquair, R. H. 1877 B.

1891 A, p. 128.

Vogt, C. 1852, Zool. Briefe., ii. (Palæoniscida.)

Woodward, A. S. 1889 H, p. 43.

1891 A, p. 425.

1893 E, p. 450.

1895 A, p. vi.

1898 B, p. 82.

Zittel, K. A. 1890 A, p. 188.

GONATODUS Traquair. Type *G. punctatus* (Agassiz).

Traquair, R. H. 1877 A, p. 555.

1890 F, p. 399. (Gonatodus, Drydenius?)

Ward, J. 1890 A, p. 178.

Woodward, A. S. 1891 A, p. 434.

Gonatodus brainerdi (Thomas).Thomas, W. H. B. 1853, Cleveland Times, Sept. 14,
as Palæoniscum brainerdi (*Ad* J. S. Newberry).

Brainerd, — 1852 A, p. 18, figs. 1-3. ("Palæoniscus.")

Hitchcock, C. H. 1868 B, p. 187. (Palæoniscus; no
description.)

Lealey, J. P. 1889 A, p. 584, figure. (Palæoniscus.)

Newberry, J. S. 1862 A, p. 78. (Palæoniscus.)

1868 A, p. 145. (Palæoniscus.)

1878 A, pp. 281, 346. (Palæoniscus.)

1889 A, p. 125, pl. xxxiv, figs. 1, 2. (Gona-
todus.)

Woodward, A. S. 1891 A, p. 436.

Devonian (Berea grit); Ohio.

AMBLYPTERUS Agassiz. Type *A. latus* Agassiz.

Agassiz, L. 1848 B (1833), ii, pp. 3, 28.

1844 A.

Eichwald, E. 1860 A, p. 1587.

Fritsch, A. 1895 A, p. 94.

Martin, K. 1873 A, p. 720.

Miller, S. A. 1889 A, p. 587.

Pictet, F. J. 1854 A, p. 181.

Quenstedt, F. A. 1852 A, p. 225.

1885 A, p. 345.

Steinmann and Döderlein 1890 A, p. 566.

Traquair, R. H. 1867 A.

1877 A.

Traquair, R. H. 1877 B.

Woodward, A. S. 1891 A, p. 437.

Zittel, K. A. 1890 A, pp. 189, 192.

Amblypterus carolinæ nom. nov.Cope, E. D. 1875 V, p. 30. (*A. ornatus*.)Emmons, E. 1857 A, p. 44, fig. 16. (*A. ornatus*,
not of Giebel.)1860 A, p. 183, fig. 1611-2. (*A. ornatus*.)Woodward, A. S. 1891 A, p. 448. (*A. ornatus*.)

Triassic; North Carolina.

HAPLOLEPIS S. A. Miller. Type *E. corrugata* (Newb.).

Miller, S. A. 1892 A, p. 715.

Hay, O. P. 1899 E, p. 791.

Miller, S. A. 1889 A, p. 597 (Eurylepis); p. 602 (Mecolepis).

Newberry, J. S. 1856 B, p. 96. (Mecolepis, preoccupied.)

1857 B, p. 150. (Eurylepis, preoccupied.)

1857 B. (Eurylepis.)

1868 A, p. 144. (Eurylepis.)

1873 A, p. 347. (Eurylepis.)

1889 A, p. 212. (Eurylepis.)

Traquair, R. H. 1894 B, p. 373. (Eurylepis.)

Woodward, A. S. 1891 A, p. 448. (Eurylepis.)

Zittel, K. A. 1891 A, p. 192. (Eurylepis.)

Haplolepis corrugata (Newb.).

Newberry, J. S. 1856 B, p. 96. (Mecolepis.)

Miller, S. A. 1892 A, p. 715.

Newberry, J. S. 1857 B. (Eurylepis.)

1873 A, pp. 138, 350, pl. xxxviii, figs. 4, 4a. (Eurylepis.)

Woodward, A. S. 1891 A, p. 450. (Eurylepis.)

Coal-measures; Ohio.

Haplolepis granulata (Newb.).

Newberry, J. S. 1856 B, p. 97. (Mecolepis granulatus, M. insculptus.)

Miller, S. A. 1892 A, p. 715.

Newberry, J. S. 1857 B, p. 150. (Eurylepis granulatus, E. insculptus.)

1873 A, p. 352, pl. xxxix, figs. 2-2a, (Eurylepis insculpta.); figs. 5-5a (Eurylepis granulata).

Woodward, A. S. 1891 A, p. 449.

Coal-measures; Ohio.

Haplolepis minima (Newb.).

Newberry, J. S. 1873 A, p. 353, pl. xxxix, fig. 3. (Eurylepis.)

Miller, S. A. 1892 A, p. 715.

Woodward, A. S. 1891 A, p. 450. (Eurylepis.)

Coal-measures; Ohio.

Haplolepis ornatissima (Newb.).

Newberry, J. S. 1856 B, p. 97. (Mecolepis.)

Miller, S. A. 1892 A, p. 715.

Newberry, J. S. 1857 B, p. 150. (Eurylepis.)

1873 A, p. 352, pl. xxxix, figs. 4, 4a. (Eurylepis.)

Woodward, A. S. 1891 A, p. 450. (Eurylepis.)

Coal-measures; Ohio.

Haplolepis ovoidea (Newb.).

Newberry, J. S. 1856 B, p. 97. (Mecolepis.)

Miller, S. A. 1892 A, p. 715.

Newberry, J. S. 1857 B, p. 150. (Eurylepis.)

1873 A, p. 351, pl. xxxix, fig. 1. (Eurylepis.)

Woodward, A. S. 1891 A, p. 450. (Eurylepis.)

Coal-measures; Ohio.

Haplolepis serrata (Newb.).

Newberry, J. S. 1856 B, p. 97. (Mecolepis.)

Miller, S. A. 1892 A, p. 715.

Newberry, J. S. 1857 B, p. 150. (Eurylepis.)

Woodward, A. S. 1891 A, p. 450. (Eurylepis.)

Coal-measures; Ohio.

Haplolepis striolata (Newb.).

Newberry, J. S. 1873 A, p. 355. (Eurylepis.)

Miller, S. A. 1892 A, p. 715.

Woodward, A. S. 1891 A, p. 450. (Eurylepis.)

Coal-measures; Ohio.

Haplolepis tuberculata (Newb.).

Newberry, J. S. 1856 B, p. 96. (Mecolepis.)

Miller, S. A. 1889 A, p. 597, fig. 1130. (Eurylepis.)

1892 A, p. 715.

Newberry, J. S. 1857 B, p. 150. (Eurylepis.)

1873 A, p. 350, pl. xxxviii, figs. 2-3a. (Eurylepis.)

Woodward, A. S. 1891 A, p. 449. (Eurylepis.)

Coal-measures; Ohio.

CHEIROLEPIS Agassiz. Type *C. traillii* Agassiz.

Agassiz, L. 1843 B (1835), pt. II, p. 128.

1844 B, p. 44.

Elchwald, E. 1860 A, p. 1573.

Huxley, T. H. 1861 B, p. 39.

McCoy, F. 1855 A, p. 590. (Chirolepis.)

Miller, S. A. 1889 A, p. 589. (Chirolepis.)

Nicholson and Lydekker 1889 A, p. 977.

Pander, C. H. 1860 A, p. 69.

Pictet, F. J. 1854 A, p. 190.

Powrie, J. 1867 A.

Reis, O. M. 1896 A, p. 187.

Traquair 1875 A.

1888 B, p. 516.

Woodward, A. S. 1891 A, p. 451.

Woodward and Sherborn 1890 A, p. 81.

Zittel, K. A. 1890 A, p. 188.

Cheirolepis canadensis Whiteaves.

Whiteaves, J. F. 1881 C, p. 33.

Cope, E. D. 1881 L, p. 253. (C. cummingsi?)

Dana, J. D. 1896 A, p. 618, fig. 974.

Traquair, R. H. 1890 A, p. 20.

Whiteaves, J. F. 1881 A, p. 496.

1883 A, p. 355.

1883 D, p. 33.

1889 A, p. 90.

Woodward, A. S. 1891 A, p. 457.

Upper Devonian; Province of Quebec.

RHADINICHTHYS Traquair. Type *R. ornatissimus* Agassiz.

Traquair, R. H. 1877 A, p. 558.

Collinge, W. E. 1898 A, p. 7.

Traquair, R. H. 1881 A, p. 25.

Ward, J. 1890 A, p. 175.

Wellburn, E. D. 1900 B, p. 260.

Woodward, A. S. 1891 A, p. 461.

Zittel, K. A. 1890 A, p. 193.

Rhadinichthys alberti (Jackson).

Jackson, C. T. 1851 B, p. 22, pl. i, fig. 1. (Palæoniscus.)

Dawson, J. W. 1868 A, p. 231, fig. 62. (Palæoniscus alberti?)

1877 A, p. 338.

1878 A, supplement, p. 100. (Palæoniscus.)

Egerton, P. G. 1853 A. (Palæoniscus.)

Jackson, C. T. 1851 A, p. 138. (Palæoniscus.)

Lesley, J. P. 1889 A, p. 584, figure. (Palæoniscus.)

Miller, S. A. 1889 A, p. 611, fig. 1172.

Newberry, J. S. 1889 A, p. 187. (Palæoniscus.)

Traquair, R. H. 1877 A, p. 559.

Woodward, A. S. 1891 A, p. 465.

Subcarboniferous; New Brunswick.

Rhadinichthys cairnsii (Jackson).

Jackson, C. T. 1851 B, p. 23, pl. i, fig. 3. (Palæoniscus.)

Dawson, J. W. 1877 A, p. 339.

1878 A, supplement, p. 100. (Palæoniscus.)

Egerton, P. G. 1853 A. (Palæoniscus.)

Jackson, C. T. 1851 A, p. 139. (Palæoniscus.)

Newberry, J. S. 1889 A, p. 187. (Palæoniscus.)

Woodward, A. S. 1891 A, p. 465.

Subcarboniferous; New Brunswick.

Rhadinichthys gracilis (Newb. and Worth).

Newberry and Worthen 1870 A, p. 347, pl. iii, fig. 4. (Palæoniscus.)

Woodward, A. S. 1891 A, p. 469.

Coal-measures; Illinois.

Rhadinichthys leidyianus (Lea).

Lea, I. 1853 B, p. 206, pl. xx, figs. 4, 5. (Palæoniscus.)

Amer. Jour. Science 1852 B.

Woodward, A. S. 1891 A, p. 469.

Coal-measures; Pennsylvania.

Rhadinichthys? lineatus (Newb.).

Newberry, J. S. 1856 B, p. 97. (Mecolepis.)

1857 B. (Eurylepis.)

1873 A, p. 353, pl. xxxix, figs. 7, 7a. (Eurylepis.)

1889 A, p. 228. (Rhadinichthys?)

Woodward, A. S. 1891 A, p. 450. (Eurylepis?)

Coal-measures; Ohio.

Rhadinichthys modulus (Dawson).

Dawson, J. W. 1877 A, p. 337, fig. 1. [Palæoniscus (Rhadinichthys).]

1878 A, supplement, p. 99, fig. 18. [P. (Rhadinichthys).]

Newberry, J. S. 1889 A, p. 187. (Palæoniscus.)

Woodward, A. S. 1891 A, p. 466.

Subcarboniferous; New Brunswick.

PYGOPTERUS Agassiz. Type *P. humboldti* Agassiz.

Agassiz, L. 1843 B (1833), ii, pt. i, p. 10; ii, pt. ii, pp. 74, 152 (1844).

1844 A.

Barkas, W. J. 1878 C, pp. 205, 207.

McCoy, F. 1855 A, p. 608.

Martin, K. 1873 A, p. 722.

Miller, S. A. 1889 A, p. 611.

Pictet, F. J. 1854 A, p. 179.

Quenstedt, F. A. 1862 A, p. 226.

1885 A, p. 347.

Traquair, R. H. 1867 A.

1875 B.

1877 A.

Woodward, A. S. 1891 A, p. 470.

Zittel, K. A. 1890 A, p. 194.

Pygopterus humboldti¹ Agassiz.

Agassiz, L. 1843 B, ii, pt. i (1833), p. 10 (P. humboldti); pt. ii (1844), p. 74, pls. liv, lv (P. humboldti); p. 76, pls. liii, lilia (P. mandibularis).

Lea, I. 1856 C, p. 78. (P. mandibularis.)

Miller, S. A. 1889 A, p. 611, fig. 1171. (P. mandibularis.)

Wheatley, C. M. 1861 A, p. 44. (P. mandibularis.)

Woodward, A. S. 1891 A, p. 470.

Permian; Europe; Triassic; Pennsylvania?

PALÆONISCUM Blainv. Type *P. freieslebeni* Blainv.

Blainville, H. M. D., 1818, *Nouv. Dict. d' Hist. Nat.*, vol. xxvii, p. 320.

The following authorities, unless otherwise indicated, call this genus *Palæoniscus*. The original form was *Palæoniscum*.

Agassiz, L. 1843 (1833) B, ii, pt. i, pp. 4, 41.

1844 A.

1851 B.

Barkas, W. J. 1878 C, p. 207.

Egerton, P. G. 1849 B, p. 4.

Elchwald, E. 1860 A, p. 1581.

Hancock and Atthey 1868 A, p. 358, pl. xv, figs. 3-5; pl. xvi, figs. 1, 2.

Koninck, L. G. de 1844 A, p. 608. (Palæoniscum.)

Kosmak, G. W. 1895 A, p. 20.

McCoy, F. 1855 A, p. 605.

Martin, K. 1873 A, p. 700, pl. xxii.

Miller, S. A. 1889 A, p. 604.

¹ This species, under the name *P. mandibularis*, was reported with doubt by Lea from the Triassic of Pennsylvania. The scales there found probably belong to some other species.

- Newberry, J. S. 1873 A, p. 344.
 Nicholson and Lydekker 1889 A, p. 977.
 Owen, R. 1845 B, p. 69.
 Pictet, F. J. 1854 A, p. 184.
 Quenstedt, F. A. 1852 A, p. 228.
 1885 A, p. 343.
 Redfield, W. C. 1841 A, p. 25.
 1856 A, p. 36.
 Rohon, J. V. 1889 A, p. 10.
 Steinmann and Döderlein 1890 A, p. 566.
 Traquair, R. H. 1877 A
 Williamson, W. C. 1849 A, p. 445, pl. xl, fig. 7; pl. xli, fig. 1.
 Woodward, A. S. 1891 A, p. 476.
 Zittel, K. A. 1890 A, p. 190.

Palæoniscus antiquum Williams.

Williams, H. U. 1886 A, p. 84, fig. 2.

Woodward, A. S. 1891 A, p. 485.
 Devonian (Portage); New York.

Palæoniscus devonicum Clarke.

Clarke, J. M. 1885 A, pp. 20, 41, pl. i, figs. 2-6.
Lesley, J. P. 1889 A, p. 585, figures.
 Woodward, A. S. 1891 A, p. 485.
 Devonian (Genesee); New York.

Palæoniscus reticulatum Williams.

Williams, H. U. 1886 A, p. 86, fig. 1.
 Woodward, A. S. 1891 A, p. 485.
 Devonian (Portage); New York.

Palæoniscus scutigerum Newb.

Newberry, J. S. 1868 A, p. 145. (No description.)
Hitchcock, C. H. 1868 B, p. 186. (No description.)
 Coal-measures; Ohio.

TEGEOLEPIS S. A. Miller. Type *Actinophorus clarkii* Newb.

- Müller, S. A.* 1892 A, p. 717.
 Claypole, E. W. 1895 F. (Actinophorus.)
 Hay, O. P. 1899 E, p. 791.
 Newberry, J. S. 1888 D, p. 179. (Actinophorus, type *A. clarkii*; preoccupied.)
 1889 A, p. 174. (Actinophorus.)
 Woodward, A. S. 1891 A, p. 486. (Actinophorus.)

Tegeolepis clarkii (Newb.).

Newberry, J. S. 1888 D, p. 179. (Actinophorus.)
 Claypole, E. W. 1895 F. (Actinophorus.)
 Newberry, J. S. 1889 A, p. 175, pl. xlix, fig. 1. (Actinophorus.)
 Woodward, A. S. 1891 A, p. 487. (Actinophorus.)
 Devonian (Cleveland shale); Ohio.

ELONICHTHYS Giebel. Type *E. germari* Giebel.

- Giebel, C. G.* 1848 A, p. 249.
 Traquair, R. H. 1877 A, p. 553. (Cosmoptychius.)
 1877 B, p. 42 (Cosmoptychius); p. 47 (Elonichthys).
 Ward, J. 1890 A, p. 171.
 Woodward, A. S. 1891 A, p. 487.
 Woodward and Sherborn 1890 A, p. 48 (Cosmoptychius); p. 73 (Elonichthys).
 Zittel, K. A. 1890 A, p. 190.

Elonichthys browni (Jackson).

- Jackson, C. T.* 1851 B, p. 22, pl. i, fig. 2. (Palæoniscus.)
 Dawson, J. W. 1877 A, p. 339. [Palæoniscus (Elonichthys) brownii.]
 1878 A, supplement p. 101. [Palæoniscus (Elonichthys) brownii.]
 Jackson, C. T. 1851 A, p. 139. (Palæoniscus.)
 Newberry, J. S. 1889 A, p. 187.
 Traquair, R. H. 1877 A, p. 553. (Elonichthys.)
 Woodward, A. S. 1891 A, p. 501.
 Subcarboniferous; New Brunswick.

Elonichthys elegans (Emmons).

- Emmons, E.* 1880 A, p. 191, fig. 167². (Rabdiolepis.)
 Leidy, J. 1876 B. (Rhabdolepis elegans?)
 1876 D. (Rabdiolepis elegans?)
 Mesozoic; N. Carolina, Pennsylvania.

Elonichthys hypsilepis Hay.

Hay, O. P. 1900 A, p. 117 (*E. peltigerus*?); p. 120 (*E. hypsilepis*); pl. vii (*E. peltigerus hypsilepis*).
 Coal-measures; Illinois.

Elonichthys macropterus (Agassiz).

Agassiz, L. 1843 B (1833), ii, pl. i, pp. 4, 31; pl. i, figs. 4-7; pl. iii, figs. 1-4. (Amblypterus.)
Goldfuss, A. 1847 A, p. 20, pl. v, figs. 1-8. (Amblypterus.)
 Hay, O. P. 1900 A, p. 120. (Syn.? of *E. hypsilepis*.)
 ?Newberry and Worthen 1870 A, p. 348. (Amblypterus.)

Traquair, R. H. 1877 A, p. 552.
 1877 B, pl. ii, fig. 6. (Rhabdolepis.)

Woodward, A. S. 1891 A, p. 491.
 Coal-measures; Europe, Illinois?

Elonichthys peltigerus Newb.

Newberry, J. S. 1866 B, p. 98.
 Hay, O. P. 1900 A, p. 117.
 Lesley, J. P. 1889 A, p. 585, figure. (Palæoniscus.)
 1896 A, pl. dlxx. (Palæoniscus.)
 Miller, S. A. 1889 A, p. 605, fig. 1155. (Palæoniscus.)
 Newberry, J. S. 1873 A, p. 345, pl. xxxviii, figs. 1-1b.
 Newberry and Worthen 1866 A, p. 17, fig. 1. (Palæoniscus.)
 Traquair, R. H. 1877 A, p. 553.
 1877 B, p. 47.
 Woodward, A. S. 1891 A, p. 489.
 Coal-measures; Ohio, Illinois, Indiana.

ACROLEPIS Agassiz. Type *A. sedgwicki* Agassiz.

Agassiz, L. 1843 B, ii, pt. i, p. 11 (1833); ii, pt. ii, p. 79 (1844).

1844 A.

Barkas, W. J. 1878 C, p. 207.

Eichwald, E. 1860 A, p. 1577.

Fritsch, A. 1895 A, p. 115.

McCoy, F. 1855 A, p. 609.

Martin, K. 1873 A, p. 717.

Miller, S. A. 1889 A, p. 587.

Pictet, F. J. 1854 A, p. 180.

Quenstedt, F. A. 1852 A, p. 226.

1885 A, p. 346.

Woodward, A. S. 1891 A, p. 501.

Zittel, K. A. 1890 A, p. 191.

Acrolepis ? hortonensis Dawson.

Dawson, J. W. 1868 A, p. 254, fig. 77 c, f.

1877 A, p. 339. (*Palaeoniscus jacksoni*.)

1878 A, p. 265, fig. 77 c, f. (*A. ? hortonensis*);

supplement, p. 101 (*Palaeoniscus jacksoni*).

Newberry, J. S. 1889 A, p. 187.

Woodward, A. S. 1891 A, p. 508.

Subcarboniferous; New Brunswick.

PLATYSOMIDÆ.

Young, J. 1866 A, p. 316.

Bridge, W. J. 1879 A, p. 723.

Cope, E. D. 1880 P.

1891 E.

Günther, A. 1880 A, p. 370.

1881 A, p. 687.

Nicholson and Lydekker 1889 A, p. 979.

Steinmann and Döderlein 1890 A, p. 567.

Traquair, R. H. 1879 A.

1891 A, p. 129.

1896 A, p. 125.

Woodward, A. S. 1891 A, p. 527. (*Platysomatida*.)

1898 B, p. 87.

Zittel, K. A. 1890 A, p. 197.

CHIRODUS McCoy. Type *C. pes-ranæ* McCoy.

McCoy, F. 1848 A, p. 130.

Davis, J. W., 1884, Quart. Jour. Geol. Soc., xl, p. 620. (*Hemiciadodus*.)

Miller, S. A. 1889 A, p. 589.

Pictet, F. J. 1854 A, p. 268.

Rohon, J. V. 1898 A.

Traquair, R. H. 1878 A, p. 15. (*Cheirodus*.)

Ward, J. 1890 A, p. 183.

Woodward, A. S. 1891 A, p. 535. (*Cheirodus*.)

Woodward and Sherborn 1890 A, p. 30. (*Cheirodus*.)

Young, J. 1866 A, p. 306. (*Amphicentrum*.)

Zittel, K. A. 1890 A, p. 199. (*Cheirodus*.)

Chirodus acutus Newb.

Newberry, J. S. 1856 B, p. 99. (*Cheirodus*.)

Miller, S. A. 1889 A, p. 589.

Woodward, A. S. 1891 A, p. 540. (*Cheirodus*.)

Coal-measures; Ohio.

PLATYSOMUS Agassiz. Type *P. gibbosus* Agassiz.

Agassiz, L. 1843 B (1835), ii, pt. i, pp. 6, 161.

1844 A.

Collinge, W. E. 1893 A, p. 9.

Egerton, P. G. 1849 A.

Heckel, J. J. 1850 A, p. 365.

King, W. 1850 A, p. 228.

Koninck, L. G. de 1878 A, p. 24.

McCoy, F. 1855 A, p. 614.

Miller, S. A. 1889 A, p. 607.

Newberry, J. S. 1873 A, p. 258.

Nicholson and Lydekker 1889 A, p. 980.

Quenstedt, F. A. 1852 A, p. 227.

1885 A, p. 347.

Pictet, F. J. 1854 A, p. 208.

Steinmann and Döderlein 1890 A, p. 567.

Traquair, R. H. 1879 A.

Woodward, A. S. 1891 A, p. 541.

Young, J. 1866 A, p. 302.

Zittel, K. A. 1890 A, p. 200.

Platysomus circularis Newb. and Worth.

Newberry and Worthen 1870 A, p. 347, pl. 'v, fig. 2.

Woodward, A. S. 1891 A, p. 550.

Coal-measures; Illinois.

Platysomus lacovianus Cope.

Cope, E. D. 1891 B, p. 462, pl. xxxi, fig. 11.

Coal-measures; Illinois.

Platysomus orbicularis Newb. and Worth.

Newberry and Worthen 1870 A, pl. iii, fig. 1. (No description.)

Woodward, A. S. 1891 A, p. 550.

Coal-measures; Illinois.

Platysomus palmaris Cope.

Cope, E. D. 1891 B, p. 460, pl. xxxiii, fig. 10.

Permian; Indian Territory.

TURSEODUS Leidy. Type *T. acutus* Leidy.

Leidy, J. 1857 F, p. 167.

Turseodus acutus Leidy.

Leidy, J. 1857 F, p. 167.

Wheatley, C. M. 1861 A, p. 44.

Woodward, A. S. 1891 A, p. 527.

Triassic?; Pennsylvania.

DICTYOPYGIDÆ.

Hay, O. P. 1899 E, p. 789.

Woodward, A. S. 1890 C, p. 1. (Catopteridæ.)
1890 D, p. 15. (Catopteridæ.)

Woodward, A. S. 1895 A, pp. vii, 1. (Catopteridæ.)

1898 B, p. 87. (Catopteridæ.)

Zittel, K. A. 1890 A, p. 202. (Stylodontidæ, in part.)

REDFIELDIUS Hay. Type *Catopterus gracilis* Redfield.

Hay, O. P. 1899 E, p. 789.

The following authors refer to this genus as *Catopterus*. This name is, however, preoccupied through Agassiz's use of it for what is now called *Dipterus*.

Egerton, P. G. 1849 B, p. 8.
1853 B, p. 277.

Newberry, J. S. 1888 A, p. 50.

Nicholson and Lydekker 1889 A, p. 983.

Pictet, F. J. 1854 A, p. 187.

Redfield, J. H. 1837 A, p. 39. (Catopterus, type *C. gracilis*; not *Catopterus* of Agassiz, 1833.)

Redfield, W. C. 1841 A, p. 26.

1856 A.

1857 A.

Traquair, R. H. 1877 A, p. 562.

Woodward, A. S. 1890 D, p. 15.

1895 A, pp. vii, 1.

1898 B, p. 88.

Zittel, K. A. 1890 A, p. 203.

Redfieldius anguilliformis (W. C. Redfield.).

Redfield, W. C. 1841 A, p. 27. (Catopterus.)

De Kay, J. E. 1842 B, p. 386. (Catopterus.)

Egerton, P. G. 1849 B, p. 10. (Catopterus.)

Hay, O. P. 1899 E, p. 789. (Redfieldius.)

Newberry, J. H. 1888 A, p. 59, pl. xviii, fig. 5. (Catopterus.)

Woodward, A. S. 1895 A, p. 3. (Catopterus.)

Triassic; Connecticut, New Jersey.

Redfieldius gracilis (J. H. Redfield.).

Redfield, J. H. 1837 A, p. 39, pl. 1. (Catopterus.)

The following authors, unless otherwise noted, put this species in *Catopterus* Redfield.

"D. L. H." 1838 A, p. 199.

Dana, J. D. 1896 A, p. 751, fig. 1170.

Davis, C. H. S. 1887 A.

De Kay, J. E. 1842 B, p. 386.

Egerton, P. G. 1849 B, p. 10.

Hay, O. P. 1899 E, p. 789. (Redfieldius.)

Hills, R. C. 1880 A.

Hitchcock, E. 1841 A, pp. 440, 460.

Newberry, J. S. 1888 A, p. 55, pl. xvi, figs. 1-3.

Redfield, W. C. 1838 B.

1839 A.

1841 A, p. 27.

1857 A.

Wheatley, C. M. 1861 A, p. 44.

Woodward, A. S. 1895 A, p. 2.

Triassic; Connecticut, Massachusetts, New Jersey.

Redfieldius minor (Newb.).

Newberry, J. S. 1888 A, p. 57, pl. xvii, figs. 1-4. (Catopterus.)

Hay, O. P. 1899 E, p. 789.

Woodward, A. S. 1895 A, p. 3. (Catopterus.)

Triassic; Connecticut.

Redfieldius ornatus (Newb.).

Newberry, J. S. 1888 A, p. 58, pl. xviii, figs. 3-36. (Catopterus.)

Hay, O. P. 1899 E, p. 789.

Woodward, A. S. 1895 A, p. 3. (Catopterus.)

Triassic; Connecticut.

Redfieldius parvulus (W. C. Redfield.).

Redfield, W. C. 1841 A, p. 28. (Catopterus.)

De Kay, J. E. 1842 B, p. 386. (Catopterus.)

Egerton, P. G. 1849 B, p. 10. (Catopterus.)

Hay, O. P. 1899 E, p. 789.

Newberry, J. S. 1888 A, p. 60, pl. xvi, figs. 4, 5. (Catopterus.)

Woodward, A. S. 1895 A, p. 2. (Catopterus.)

Triassic; Connecticut.

Redfieldius redfieldi (Egerton.).

Egerton, P. G., in Lyell, C. 1847 B, p. 278. (Catopterus.)

1849 B, p. 8. (Catopterus.)

Hay, O. P. 1899 E, p. 789.

Newberry, J. S. 1888 A, p. 53, pl. xv, figs. 1-3. (Catopterus.)

Woodward, A. S. 1895 A, p. 3. (Catopterus.)

Triassic; Connecticut, New Jersey.

DICTYOPYGE Egerton. Type *D. macrura* Redfield.

Egerton, P. G., in Lyell, C. 1847 B, p. 276.

1849 B, p. 8.

1853 B, p. 277.

Emmons, E. 1856 A, p. 52.

Newberry, J. S. 1888 A, p. 61.

Redfield, W. C. 1856 A, p. 361.

Strüver, J. 1864 A, p. 322.

Traquair, R. H. 1877 A, p. 563.

Woodward, A. S. 1890 D, p. 16.

1895 A, p. 4.

Woodward, A. S. 1898 B, p. 88.

Zittel, K. A. 1890 A, p. 203.

Dictyopyge macrura (W. C. Redfield.).

Redfield, W. C. 1841 A, p. 27. (Catopterus.)

De Kay, J. E. 1842 B, p. 386. (Catopterus.)

Egerton, P. G., in Lyell, C. 1847 B, p. 275, pl. viii; pl. ix, fig. 1.

Emmons, E. 1857 A, p. 52, pl. ix, figs. 1, 2. (Catopterus.)

Newberry, J. S. 1888 A, p. 64, pl. xviii, figs. 1, 2.
 Redfield, W. C. 1841 A, p. 27. (Catopterus.)
 1856 A, p. 361. (Catopterus.)
 1857 A, p. 185. (Catopterus.)

Woodward, A. S. 1890 D, p. 16.
 1895 A, p. 4, fig. 1.
 Triassic; Virginia.

ACIPENSERIDÆ.

Agassiz, L. 1843 B (1844), ii, pt. ii, p. 277. ("Acipenserides.")
 Bridge, W. J. 1879 A.
 1896 A, p. 534.
 Brühl, B. C. 1847 A.
 Cope, E. D. 1872 C, p. 320.
 Davis, J. W. 1877 B.
 Egerton, P. G. 1859 B.
 Gegenbaur, C. 1896 A.
 Göldi, E. A. 1883 A.
 1884 A.
 Goette, A. 1878 A, p. 442.
 Günther, A. 1870 A, p. 332.
 1880 A, p. 360.
 1881 A, p. 687.
 Hertwig, O. 1876 A, p. 373.

Iwanzow, N. 1887 A. (Scaphorhynchus.)
 Jordan and Evermann 1896 A, p. 102.
 Klaatsch, H. 1890 A, p. 146.
 Kolliker, A. 1859 A. (Acipenserini.)
 Kœstlin, O. 1844 A, p. 402. ("Stör.")
 Kosmak, G. W. 1896 A, p. 11.
 Müller, J. 1835 A.
 Newberry, J. S. 1873 A, p. 256.
 Parker, W. K. 1882 B.
 Pollard, H. B. 1892 A.
 Stannius, H. 1854 A.
 Thacher, J. K. 1877 A.
 1877 B.
 Woodward, A. S. 1889 H.
 1895 A, p. 42.
 Zittel, K. A. 1890 A, p. 163.

ACIPENSER Linn. Type *A. sturio* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. x, p. 237.
 Allis, E. P. 1900 A, p. 274.
 Bridge, W. J. 1879 A.
 Brühl, B. C. 1847 A.
 Dean, B. 1896 A.
 Gadow and Abbott 1896 A.
 Gegenbaur, C. 1866 B, p. 96, pl. vi, fig. 1; pl. viii, figs. 2, 3.
 1895 A, fig. 1.
 1898 A.
 Goette, A. 1878 A, p. 442.
 Günther, A. 1880 A, p. 361.
 Hay, O. P. 1895 A.
 Huxley, T. H. 1872 A, p. 121.
 Iwanzow, N. 1887 A. (On Scaphorhynchus.)
 Jordan and Evermann 1896 A, p. 103.
 Kittary, M. 1850 A, p. 389, pls. vi, vii.
 Kolliker, A. 1860 B.
 Kœstlin, O. 1844 A.
 Kosmak, G. W. 1896 A, p. 1, pls. xli-v-xlviii.
 Maggi, L. 1898 E, fig. 21.

Metschnikoff, O. 1879 A, pl. xxiv, figs. 1-7.
 Owen, R. 1866 A.
 Parker, W. K. 1868 A.
 1882 B.
 Salensky, W. 1899 A, p. 178.
 Stannius, H. 1854 A.
 Stephan, P. 1900 A.
 Thacher, J. K. 1877 B, pl. i, figs. 1, 2.
 Van Wijhe, J. W. 1882 A, p. 220.
 Williamson, W. C. 1849 A, p. 448, pl. lxli, fig. 11.
 Woodward, A. S. 1889 H.
 1895 A, p. 43.
 Zograf, N. 1896 A.

Acipenser ornatus Leidy.

Leidy, J. 1873 C.
 1873 A, p. 312.
 1873 B, p. 350, pl. xxxii, fig. 58.
 Woodward, A. S. 1895 A, p. 45.
 Miocene; Virginia.

POLYODONTIDÆ.

Bridge, W. J. 1879 A.
 1896 A, p. 536.
 Browne, M. 1886 A. (Chondrosteus.)
 Brühl, B. C. 1847 A. ("Spatularien.")
 Collinge, W. E. 1896 A.
 Gegenbaur, C. 1866 B, p. 99, pl. viii, fig. 4. (Polyodon.)
 1898 A.
 Günther, A. 1870 A, p. 346.
 1880 A, p. 362.
 Huxley, T. H. 1872 A, p. 122.
 Jordan and Evermann 1896 A, p. 101.

Mivart, St. G. 1879 A, p. 471.
 Müller, J. 1835 A. (Spatularia.)
 Parker, W. K. 1871 A, p. 195.
 Thacher, J. K. 1877 B.
 Traquair, R. H. 1877 B.
 1887 A. (Chondrosteus.)
 Van Wijhe, J. W. 1882 A, p. 240.
 Woodward, A. S. 1889 H.
 1895 A, pp. vii, 46.
 1899 B, p. 461. (Gyrosteus.)
 Zittel, K. A. 1890 A, p. 164.

CROSSOPHOLIS Cope. Type *C. magnicaudatus* Cope.

- Cope, E. D. 1883 G. G. (*Crassopholis, errore.*)
 1885 Y, p. 1090.
 1886 T, p. 161.
 1887 S, p. 325.
 Woodward, A. S. 1889 H, p. 29.
 1895 A, p. 46.
 1898 B, p. 94.
 Zittel, K. A. 1890 A, p. 165.

Crossopholis magnicaudatus Cope.

- Cope, E. D. 1883 G. G.
 1885 Y, p. 1090.
 1886 T, p. 161, pl. 1, figs. 1-3.
 Woodward, A. S. 1895 A, p. 47.
 Eocene; Wyoming.

Order PYCNODONTI.

- Agassiz, L. 1843 B, II, pt. II, p. 181. ("Pycnodontes.")
 Cornuel, J. 1877 A, p. 609. ("Pycnodontes.")
 Davis, J. W. 1887 C, p. 495. (Pycnodontoides.)
 Didelot, L. 1875 A. ("Pycnodontes.")
 Egerton, P. G. 1849 A.
 1869 A, p. 381.
 Fricke, K. 1875 A.
 Günther, A. 1880 A, p. 366. (Pycnodontoides.)
 Heckel, J. J. 1850 A. ("Pycnodonten.")
 1854 A. ("Pycnodonten.")
 1856 A. ("Pycnodonten.")
 Huxley, T. H. 1876 B, xiii, p. 411. (Pycnodonta.)

- Lütken, C. 1868 B. (Lepidopleuridae.)
 1873 A, pp. 30, 45. (Pycnodontes.)
 Owen, R. 1845 B, p. 70. ("Pycnodonta.")
 1860 E, p. 160. (Pycnodontes.)
 Pictet, F. J. 1854 A, p. 194. (Pycnodontes.)
 Pictet and Jaccard 1860 A, p. 42. (Pycnodontes.)
 Quenstedt, F. A. 1852 A, p. 209. ("Pleurolepididen.")
 1885 A, p. 325. ("Pleurolepiden.")
 Wagner, A. 1861 B, p. 49. (Pycnodontes.)
 Young, 1866 A, p. 315. (Lepidopleuridae, part.)
 Zittel, K. A. 1890 A, p. 237. (Pycnodontidae.)

PYCNODONTIDÆ.

- Cope, E. D. 1877 N, p. 61.
 1878 A, pp. 297, 298.
 1885 Z, p. 7.
 Davis, J. W. 1887 C, p. 495.
 Günther, A. 1880 A, p. 366.
 1881 A, p. 687.
 Hancock and Howes 1872 A. ("Pycnodonts.")
 Hay, O. P. 1898 A, p. 358.
 1898 C, p. 347.
 Heckel, J. J. 1856 A.
 Huxley, T. H. 1872 A, p. 129.
 King, W. 1850 A, p. 227.
 Klaatsch, H. 1890 A, p. 149.
 Newberry, J. S. 1873 A, p. 258.

- Nicholson and Lydekker 1889 A, p. 983.
 Owen, R. 1845 B, p. 70. ("Pycnodonta.")
 1860 E, p. 140.
 Pictet, F. J. 1854 A, p. 194. (Pycnodontes.)
 Steinmann and Döderlein 1890 A, p. 543.
 Traquair, R. H. 1879 A, p. 380. (Pycnodontidae.)
 1896 A, p. 125.
 Woodward, A. S. 1895 A, pp. xi, 189.
 1896 C, p. 1.
 1898 B, p. 101.
 Young, J. 1866 A.
 Zittel, K. A. 1890 A, p. 236.
 1896 A, p. 411.

TYPODUS Quenstedt. Type *T. annulatus* Quenstedt.

- Quenstedt, F. A., 1858, Der Jura, p. 781.
 Egerton, P. G. 1869 A, p. 582. (Mesodon.)
 Hay, O. P. 1899 E, p. 789.
 Heckel, J. J. 1850 A, p. 365. (Mesodon.)
 1856 A, 202. (Mesodon.)
 Pictet, F. J. 1854 A, p. 203. (Mesodon.)
 Pictet and Jaccard 1860 A, p. 45. (Mesodon.)
 Quenstedt, F. A. 1852 A, p. 330. (Mesodon.)
 Wagner, A. 1851 A, p. 56. (Mesodon; type *Gyr-
 odus macropterus* Agassiz.)
 1861 B, p. 69.
 Woodward, A. S. 1895 A, p. 199. (Mesodon.)
 1896 C, p. 13. (Mesodon.)
 1898 B, p. 104. (Mesodon.)
 Zittel, K. A. 1890 A, p. 247. (Mesodon.)
 The name *Mesodon* was employed by Rafinesque for a mollusk in 1819. According to Mr. A. S. Woodward, *Typodus* is probably a

synonym of *Mesodon*, and is here accepted provisionally as the name of this genus.

Typodus abrasus (Cragin).

- Cragin, F. W. 1894 A, p. 72, pl. II, figs. 13, 19. (Mesodon.)
 Hay, O. P. 1899 E, p. 789.
 Williston, S. W. 1900 A, p. 29. (Mesodon.)
 1900 B, p. 256. (Mesodon abrasus; *Lepidotus* sp.)
 Woodward, A. S. 1895 A, p. 532. (Mesodon.)
 Cretaceous (Neocomian); Kansas.

Typodus diastematicus (Cope).

- Cope, E. D. 1894 F, p. 443, fig. 5. (Mesodon.)
 Hay, O. P. 1899 E, p. 789.
 Woodward, A. S. 1895 A, p. 213. (Mesodon.)
 Cretaceous; Texas.

Typodus dumblei (Cope).

Cope, E. D. 1892 J, p. 128. (Microdon.)
1892 E, p. 256. (Microdon.)
1894 F, p. 444, pl. xx, fig. 7. (Mesodon.)

Hay, O. P. 1899 E, p. 789.
Woodward, A. S. 1895 A, p. 213. (Mesodon.)
Cretaceous; Texas.

Cœlodus Heckel. Type *C. saturnus* Heckel.

Heckel, J. J. 1856 A, p. 202.
Cope, E. D. 1894 F, p. 447.
Davis, J. W. 1890 A, p. 415.
Priem, F. 1898 A, p. 230.
Quenstedt, F. A. 1885 A, p. 330.
Vetter, B. 1881 A, p. 34.
Woodward, A. S. 1895 A, p. 249.
Woodward and Sherborn 1890 A, p. 41.
Zittel, K. A. 1890 A, p. 248.

Williston, S. W. 1900 A, p. 28, pl. vi, fig. 12.
1900 B, p. 254, pl. xxiv, fig. 12.
Woodward, A. S. 1895 A, p. 257.
Cretaceous (Comanche); Oklahoma.

Cœlodus stantoni Willist.

Williston, S. W. 1900 A, p. 28, pl. vi, fig. 11; pl. viii, fig. 6.
1900 B, p. 255, pl. xxiv, fig. 11; pl. xxvi, fig. 6.
Cretaceous (Kiowa shales); Kansas.

Cœlodus brownii Cope.

Cope, E. D. 1894 F, p. 447, pl. xx, fig. 10.
1894 A, p. 66.

Pycnodus Agassiz. Type *Zeus platessus* Blainv.

Agassiz, L. 1843 B (1833), i, pl. G, fig. 1. (Name and figure only.)
1843 B, ii, pt. 1 (1833), p. 16; pt. ii (1844), p. 183 (Pycnodus); p. 201 (Periodus).
1844 A.
Bronn, H. G. 1837 A, p. 494, pl. xxv, fig. 3.
Cope, E. D. 1878 A, p. 297.
Cormuel, J. 1877 A, p. 620.
Didelot, L. 1875 A.
Egerton, P. G. 1849 A.
Heckel, J. J. 1850 A, p. 365.
1856 A, p. 204.
Leidy, J. 1873 B, p. 292.
King, W. 1850 A, p. 228.
Nicholson and Lydekker 1889 A, p. 964.
Owen, R. 1845 B, p. 70, pl. xxxiv.
Pictet, F. J. 1854 A, p. 197.
Pictet and Campiche 1858 A, p. 55.
Quenstedt, F. A. 1852 A, p. 212.
1885 A, p. 329.
Vetter, B. 1881 A, p. 25.
Wagner, A. 1851 A, pp. 35, 57.
Woodward, A. S. 1895 A, p. 275.
Zittel, K. A. 1890 A, p. 250.

Pycnodus carolinensis Emmons.

Emmons, E. 1858 B, p. 244, fig. 96.
Cope, E. D. 1875 V, p. 30.
Leidy, J. 1873 B, pp. 294, 350.
Woodward, A. S. 1895 A, p. 279.
Miocene; North Carolina.

Pycnodus phaseolus Hay.

Hay, O. P. 1899 E, p. 788.
Cope, E. D. 1875 E, p. 280. (P. faba.)
Leidy, J. 1872 M, p. 163. (P. faba; preoccupied by Meyer, 1847.)
1873 B, pp. 292, 349, pl. xix, figs. 15, 16. (P. faba.)
Woodward, A. S. 1895 A, p. 265. (P. faba.)
Cretaceous; Mississippi, New Jersey.

Pycnodus robustus Leidy.

Leidy, J. 1857 F, p. 168.
1873 B, pp. 293, 350, pl. xxxvii, figs. 18, 19.
Woodward, A. S. 1895 A, p. 266.
Cretaceous; New Jersey.

Pycnodus sp. indet.

Emmons E. 1857 A, p. 50, fig. 25.
Triassic (Chatham); North Carolina.

Hadrodus Leidy. Type *H. priscus* Leidy.

Leidy, J. 1857 F, p. 167.
1873 B, p. 294.
This genus was suspected by Leidy to be reptilian, allied to *Placodus*.

Hadrodus priscus Leidy.

Leidy, J. 1857 F, p. 167.
1873 B, pp. 294, 350, pl. xix, figs. 17-20.
Cretaceous; Mississippi.

Uranoplosus Sauvage. Type *U. cotteui* Sauvage.

Sauvage, H. E. 1879 A, p. 47, pl. i, fig. 1.
Cope, E. D. 1894 F, p. 445.

Uranoplosus arctatus Cope.

Cope, E. D. 1894 F, p. 445, pl. xx, fig. 8.
1894 A, p. 65. (No description.)
Cretaceous (Comanche); Oklahoma.

Uranoplosus flectidens Cope.

Cope, E. D. 1894 F, p. 446, pl. xx, fig. 9.
1894 A, p. 65. (No description.)
Cretaceous (Comanche); Oklahoma.

Order HOLOSTEI Müller.

Müller, J. 1846 C, pp. 147, 203.
Gadow, H. 1898 A, p. 8.
Glebel, C. G. 1847 A, p. 141.

Gill, T. 1872 C, p. 21. (Hyoganoidei.)
Jordan and Evermann 1896 A, p. 107.

Suborder GINGLYMODI Cope.

Cope E. D. 1872 C, p. 328.
Barkas, W. J. 1878 C, p. 203. (Lepidosteidae.)
Cope, E. D., 1872 C, p. 330.
1878 A, p. 296.
1884 O, p. 52.
1887 O, p. 1018.
1889 R, p. 857.
Gill, T. 1872 C, p. 21. (Rhomboganoidei.)
Günther, A. 1881 A, p. 687. (Lepidosteoidel.)
Hay, O. P. 1898 C, p. 341. (No name.)
Haeckel, E. 1895 A, p. 236. (Lepidostones.)
Huxley, T. H. 1861 B, p. 28. (Lepidosteidae, as suborder.)

Jordan and Evermann 1896 A, p. 108. (Rhomboganoidea.)
Lütken, C. 1873 A, pp. 23, 45. (Lepidosteini.)
Nicholson and Lydekker 1889 A, p. 980. (Lepidosteoides.)
Steinmann and Döderlein 1890 A, p. 569. (Enganoidei.)
Traquair, R. H. 1896 A, p. 126. (Aëtheospondyli.)
Woodward, A. S. 1893 A, p. 413. (Lepidosteoidel.)
1895 A, pp. xxii, 415. (Aëtheospondyli, in part.)
1898 B, p. ii. (Aëtheospondyli, in part.)
Zittel, K. A. 1890 A, p. 201 (Lepidosteidae); p. 899 (Lepidostei).

LEPIDOTIDÆ.

Owen, R. 1860 E, p. 143.
Cope, E. D. 1877 N, p. 60.
1878 A, p. 298.
1889 R, p. 858. (Sphærodontidæ, Lepidotidæ.)
Günther, A. 1880 A, p. 368. (Sphærodontidæ.)
Hay, O. P. 1898 A, p. 358. (Semionotidæ.)
1898 C, p. 347. (Semionotidæ.)
Nicholson and Lydekker 1889 A, p. 986.

Wagner A. 1863 A, p. 613 (Stylodontes); p. 617 (Sphærodontes).
Williamson, W. C. 1849 A, p. 441. (Lepidotus.)
Woodward, A. S. 1890 D, p. 30. (Semionotidæ.)
1895 A, pp. ix, 49. (Semionotidæ.)
1895 E, p. 8. (Semionotidæ.)
1898 B, p. 95. (Semionotidæ.)
Zittel, K. A. 1890 A, p. 202 (Stylodontidæ); p. 207 (Sphærodontidæ).

LEPIDOTUS Agassiz. Type *Cyprinus elvensis* Blainville.

Agassiz, L. 1843 B (1837), ii, pp. 8, 233.
1844 A.
Barkas, W. J. 1878 C, p. 205.
Branco, W. 1887 A.
Bronn, H. G. 1837 A, 485.
Collinge, W. E. 1893 A, p. 9.
Cornuel, J. 1877 A, p. 620.
Egerton, P. G. 1852 A.
1869 A, p. 385.
Etheridge, R. 1889 A.
Fricke, K. 1875 A, p. 377.
Hay, O. P. 1898 C, p. 347.
Heckel, J. J. 1850 A, p. 362.
Kner, R. 1866 B, p. 313.
Nicholson and Lydekker 1889 A, p. 986.
Owen, R. 1845 B, p. 69, pls. 30, 31.

Pictet, F. J. 1854 A, p. 160.
Pictet and Jaccard 1860 A, p. 26.
Quenstedt, F. A. 1847 A, pls. i, ii.
1852 A, p. 195.
1885 A, p. 307.
Wagner A. 1863 A, p. 618.
Williamson, W. C. 1849 A, p. 441, pl. xi, figs. 3, 4.
Woodward, A. S. 1893 A.
1893 D, pls. xlix, i.
1895 A, p. 77.
1898 A, p. 325.
Zittel, K. A. 1890 A, p. 208.
Lepidotus sp. indet.
Williston, S. W. 1900 A, p. 29.
Cretaceous (Kiowa shales); Kansas.

ACENTROPHORUS Traquair. Type *A. varians* (Kirkby).

Traquair, R. H. 1877 A, p. 565.
Fritsch, A. 1895 A, p. 81.
Lütken, C. 1873 A, p. 26, footnote.
Newberry, J. S. 1888 A, p. 67.
Traquair, R. H. 1900 B, p. 523.
Woodward, A. S. 1895 A, p. 51.
Zittel, K. A. 1890 A, p. 203.

Acentrophorus chicopensis Newb.
Newberry, J. S. 1888 A, p. 69, pl. xix, figs. 3, 4.
1887 A, p. 127. (No description).
Woodward, A. S. 1895 A, p. 54.
Triassic; New Jersey, Connecticut.

SEMIONOTUS Agassiz. Type *S. bergeri* Agassiz.

Agassiz, L., 1832, Neues Jahrb. Mineral., p. 144.
1843 B (1837), II, pt. 1, pp. 8, 222.

Barkas, W. J. 1878 C, p. 206.

Bronn, H. G. 1837 A, p. 485, pl. xxiv, fig. 4.

Egerton, P. G., in Lyell, C. 1847 B. (Ischypterus;
type *Palæoniscus fultus*.)

1849 B, p. 8. (Ischypterus.)

Fraas, O. 1861 A.

Kner, R. 1866 B, p. 318.

Newberry, J. S. 1888 A, p. 24.

Nicholson and Lydekker 1890 A, p. 982.

Owen, R. 1845 B, p. 69.

Pictet, F. J. 1864 A, p. 163.

Quenstedt, F. A. 1862 A, p. 206.

1885 A, p. 320.

Redfield, W. C. 1853 A, p. 271. (Ischypterus.)

1856 A, p. 362. (Ischypterus, in part.)

1857 A. (Ischypterus, in part.)

Strüver, J. 1864 A.

Traquair, R. H. 1877 A. (Ischypterus.)

Williamson, W. C. 1849 A, p. 444.

Woodward, A. S. 1895 A, p. 55.

1898 B, p. 96.

Zittel, K. A. 1890 A, p. 203 (Ischypterus); p. 204
(Semionotus).

Semionotus agassizii (W. C. Redfield).

Redfield, W. C. 1841 A, p. 26. (Palæoniscus.)

De Kay, J. E. 1842 B, p. 386.

Egerton, P. G. 1849 B, p. 10. (Ischypterus.)

Giebel, C. G. 1848 A, p. 245. (Palæoniscus.)

Newberry, J. S. 1888 A, p. 30, pl. iii, fig. 1.
(Ischypterus.)

Redfield, W. C. 1843 A, p. 135.

Traquair, R. H. 1877 A, p. 559. (Ischypterus.)

Woodward, A. S. 1891 A, p. 486.

1895 A, p. 62.

Triassic; New Jersey.

Semionotus alatus (Newb.).

Newberry, J. S. 1888 A, p. 37, pl. viii, figs. 1, 2.
(Ischypterus.)

1887 A. (Ischypterus; no description.)

Woodward, A. S. 1895 A, p. 63.

Triassic; New Jersey.

Semionotus braunii (Newb.).

Newberry, J. S. 1888 A, p. 43, pl. xii, fig. 3; pl. xiii,
figs. 1, 2. (Ischypterus.)

Gratacap, L. P. 1886 A, p. 243, figure. (Palæoniscus
latus, *error*.)

Newberry, J. S. 1887 A. (Ischypterus braunii; no
description.)

Woodward, A. S. 1895 A, p. 63.

Triassic; New Jersey.

Semionotus elegans (Newb.).

Newberry, J. S. 1888 A, p. 37, pl. vii, fig. 2; pl. x,
fig. 1; pl. xiv, figs. 1, 2. (Ischypterus.)

1887 A. (Ischypterus, no description.)

Woodward, A. S. 1895 A, p. 63.

Triassic; New Jersey.

Semionotus fultus (J. H. Redfield.)

Redfield, J. H. 1837 A, p. 37.

Agassiz, L. 1843 B, II, pp. 43, 102, pl. viii, figs. 4, 5.

De Kay, J. E. 1842 B, p. 385.

Egerton, P. G., in Lyell, C. 1847 B, p. 277.

1849 B, p. 10. (Ischypterus.)

Fraas, E. 1861 A.

Giebel, C. G. 1848 A, p. 343. (Palæoniscus.)

Hitchcock, E. 1841 A, p. 459. (Palæoniscus.)

Newberry, J. S. 1888 A, p. 35, pl. vi, fig. 2; pl. vii,
fig. 1. (Ischypterus.)

1888 A, p. 41, pl. xii, fig. 1. (I. macropterus.)

Redfield, W. C. 1841 A, p. 25. (Palæoniscus ma-
cropterus.)

1843 A, p. 135. (Palæoniscus.)

1857 A, p. 184. (Palæoniscus.)

Traquair, R. H. 1877 A, p. 559. (Ischypterus.)

Woodward, A. S. 1891 A, p. 486.

1895 A, p. 58.

Zittel, K. A. 1890 A, p. 203. (I. macropterus,
I. fultus.)

Triassic; Massachusetts, Connecticut, New
Jersey.

Semionotus gigas (Newb.).

Newberry, J. S. 1888 A, p. 49, pl. xiv, fig. 3.
(Ischypterus.)

1887 A. (Ischypterus; no description.)

Woodward, A. S. 1895 A, p. 63.

Triassic; New Jersey.

Semionotus lenticularis (Newb.).

Newberry, J. S. 1888 A, p. 39, pl. x, figs. 2, 3.
(Ischypterus.)

1887 A. (Ischypterus; no description.)

Woodward, A. S. 1895 A, p. 63.

Triassic; New Jersey.

Semionotus lineatus (Newb.).

Newberry, J. S. 1888 A, p. 40, pl. xi, figs. 1, 2.
(Ischypterus.)

Woodward, A. S. 1895 A, p. 63.

Triassic; New Jersey.

Semionotus marshii (W. C. Redfield).

Redfield, W. C., in Newberry, J. S. 1888 A, p. 28,
pl. ii, fig. 1. (Ischypterus.)

1856 A, p. 363. (No description.)

1857 A, p. 188. (No description.)

Woodward, A. S. 1895 A, p. 63.

Triassic; Massachusetts.

Semionotus micropterus (Newb.).

Newberry, J. S. 1888 A, p. 2, pl. xii, fig. 2. (Ischy-
pterus.)

1887 A. (Ischypterus; no description.)

Woodward, A. S. 1895 A, p. 63.

Triassic; Connecticut.

Semionotus minutus (Newb.).

Newberry, J. S. 1888 A, p. 48, pl. xiii, figs. 5, 5a.
(Ischypterus.)

1887 A. (Ischypterus; no description.)

Woodward, A. S. 1895 A, p. 63.

Triassic; Connecticut.

Semionotus modestus (Newb.).

Newberry, J. S. 1888 A, p. 38, pl. ix, figs. 1, 3. (Ischypterus.)

1887 A. (Ischypterus; no description.)

Woodward, A. S. 1895 A, p. 63.

Triassic; New Jersey.

Semionotus ovatus (W. C. Redfield).

Redfield, W. C. 1841 A, p. 26.

De Kay, J. E. 1842 B, p. 386.

Egerton, P. G., in Lyell, C. 1847 B, p. 277, pl. ix,

fig. 2. ("Tetragonolepis.")

Newberry, J. S. 1888 A, p. 27, pl. i, fig. 1. (Ischypterus.)

Traquair, R. H. 1877 A, p. 559. (Ischypterus.)

Woodward, A. S. 1891 A, p. 486.

1895 A, p. 63.

Triassic; Massachusetts, New Jersey.

Semionotus parvus (W. C. Redfield).

Redfield, W. C., in Newberry, J. S. 1888 A, p. 45, pl. xiii, fig. 4. (Ischypterus.)

Hitchcock, E. 1841 A, pl. xix. (No name.)

Newberry, J. S. 1887 A. (Ischypterus; no description.)

Woodward, A. S. 1895 A, p. 63.

Triassic; Massachusetts.

Semionotus robustus (Newb.).

Newberry, J. S. 1888 A, p. 36, pl. vi, fig. 1. (Ischypterus.)

1887 A. (Ischypterus; no description.)

Woodward, A. S. 1895 A, p. 63.

Triassic; New Jersey.

Semionotus tenuiceps (Agassiz).

Agassiz, L. 1843 B (1835), ii, pt. i, pp. 159, 303, pl. xiv, figs. 4, 5. (Eurynotus.)

"D. L. H." 1838 A, p. 199. (Palaeoniscus latus.)

Deecke, W., Palaeontographica, xxxv, p. 14. (Allolepidotus americanus.)

Egerton, P. G. 1849 B, p. 10. (Ischypterus.)

Emmons, E. 1857 A, p. 143, figs. 1, 2 (Ischypterus macropterus); p. 144, pl. ixa, fig. 3; text fig. 112 (Eurynotus tenuiceps, var. ceratocephalus).

1860 A, p. 188, fig. 164. (Eurynotus ceratocephalus.)

Giebel, C. G. 1848 A, p. 286.

Hitchcock, E. 1841 A, p. 459, pl. xxix, figs. 1 and 2 (Eurynotus.)

Newberry, J. S. 1888 A, p. 32, pl. v, figs. 1-3; pl. vii, fig. 3; p. 46, pl. xiii, fig. 3. (S. latus.)

Redfield, J. H. 1837 A, p. 39 (Eurynotus tenuiceps); p. 38, pl. ii (Palaeoniscus latus).

Redfield, W. C. 1841 A, p. 26. (Palaeoniscus latus.)

1843 A, p. 135. (P. latus.)

1856 A, p. 362. (P. latus.)

Traquair, R. H. 1877 A, p. 559. (Ischypterus.)

Woodward, A. S. 1891 A, p. 531 (S. tenuiceps); p. 486 (Palaeoniscus latus).

1895 A, p. 59.

Triassic; Massachusetts, Connecticut, New Jersey.

LEPISOSTEIDÆ.

Beard, J. 1890, A, p. 183.

Brühl, B. C. 1847 A. (Lepidosteus.)

Cope, E. D. 1872 C, p. 380.

1878 A, p. 296.

1884 O, p. 52.

1887 O, p. 1018.

1889 R, p. 857.

Günther, A. 1870 A, p. 328.

1880 A, p. 367.

1881 A, p. 687.

Hay, O. P. 1895 A.

Hertwig, O. 1879 A.

Huxley, T. H. 1861 B, p. 28. (Lepidosteini.)

Jordan and Evermann 1896 A, p. 108.

Klaatsch, H. 1890 A, p. 125.

Kölliker, A. 1869 A. (Lepidosteini.)

Lütken, C. 1868 B, p. 430.

Müller, J. 1846 A, p. 208. (Lepidosteini.)

1846 B, p. 85. (Lepidosteini.)

Newberry, J. S. 1873 A, p. 255.

Nicholson and Lydekker 1889 A, p. 968.

Stannius, H. 1854 A. (Lepidosteini.)

Ussow, S. 1900 A. ("Lepidostien.")

Woodward, A. S. 1895 A, pp. xviii, 140.

Zittel, K. A. 1890 A, p. 222. (Ginglymodi.)

LEPISOSTEUS Lacépède. Type *L. gavalis* = *L. ossesus*.

Lacépède, 1803, Hist. Nat. Poissons, vol. v, p. 331.

Most authors employ the orthography *Lepidosteus*. The original is given above.

Agassiz, L. 1843 B, ii, pt. ii, p. 4. (Lepidosteus.)

Allis, E. P. 1900 A, p. 273.

Andres, A. 1893 B. (Lepidosteus, Clastes.)

Balfour, F. M. 1882 A.

Baur, G. 1889 E.

1889 F, p. 469.

Beard, J. 1890 A, p. 182.

Bridge, T. W. 1896 A, p. 540.

Brühl, B. C. 1847 A.

Cope, E. D. 1869 F, p. 242. (Pneumatosteus, type *P. nahunticus*.)

1872 C, p. 319.

1873 E, p. 633. (Clastes, type *C. anaz*.)

1875 C, p. 37. (Clastes.)

Cope, E. D. 1875 V, p. 80. (Pneumatosteus.)

1881 D, p. 184. (Clastes.)

1884 O, p. 52 (Pneumatosteus); p. 53 (Clastes).

Davidoff, M. 1880 A.

1880 B.

Eastman, C. R. 1900 A, p. 68.

Gadow and Abbott 1895 A.

Gegenbaur, C. 1865 E, p. 104, pl. vi, fig. 5; pl. viii, fig. 5.

1895 A, p. 6.

Goette, A. 1878 A, p. 453.

Günther, A. 1870 A, p. 328.

1880 A, p. 367.

Hay, O. P. 1895 A.

1896 B, p. 959.

1898 C, p. 345.

- Hertwig, O. 1879 A, pla. i, ii.
 Huxley, T. H. 1872 A, p. 124.
 1883 A.
 Klaatsch, H. 1890 A, p. 125.
 Kosmak, G. W. 1895 A, p. 8.
 Mackintosh, H. W. 1878 A, pl. ii, fig. 6.
 Marsh, O. C. 1898 E, p. 567.
 Müller, J. 1846 A.
 1846 B.
 1846 C.
 Nickerson, W. S. 1893 A.
 Nicholson and Lydekker 1889 A, p. 968. (Pneumatosteus.)
 Owen, R. 1845 B, p. 74, pl. xxxv.
 Parker, W. K. 1882 A.
 Reissner, E. 1850 A, p. 254, pl. v.
 Rœe, C. 1894 B.
 Stannius, H. 1846 A.
 1854 A.
 Stephan, P. 1900 A.
 Thacher, J. K. 1877 B, pl. ii, fig. 8.
 Traquair, R. H. 1896 A, p. 126.
 1900 B, p. 523.
 Van Wijhe, J. W. 1882 A, p. 265.
 White C. A. 1888 A. (Clastes.)
 Williamson, W. C. 1849 A, p. 439, pl. xl, figs. 1, 2.
 Woodward, A. S. 1895 A, p. 440 (Lepidosteus); p. 445 (Clastes.)
 Zittel, K. A. 1890 A, p. 222. (Lepidosteus, Clastes.)
 Zograf, N. 1896 A.

Lepidosteus aganus (Cope).

- Cope, E. D. 1877 K, p. 38, pl. xxiii, figs. 10-29 (Clastes.)
 Eocene (Wasatch); New Mexico.

Lepidosteus atrox Leidy.

- Leidy, J. 1873 D, p. 97.
 Cope, E. D. 1873 E, p. 633 (Clastes anax); p. 634 (C. atrox).
 1884 O, p. 53, pl. ii, figs. 50-52 (Clastes anax); p. 54, pl. ii, figs. 1, 2 (C. atrox).
 Eastman, C. R. 1900 A, p. 69, pl. i, fig. 2; pl. ii. (Lepidosteus.)
 1900 E, p. 57. (Lepidosteus.)
 Leidy, J. 1873 B, pp. 189, 349, pl. xxxii, figs. 14, 15.
 Woodward, A. S. 1895 A, p. 444 (C. atrox); p. 445 (C. anax).
 Eocene (Bridger); Wyoming.

Lepidosteus cuneatus (Cope).

- Cope, E. D. 1884 O, p. 55, pl. i, fig. 6. (Clastes.)
 1880 T, p. 303. (Clastes.)
 Eastman, C. R. 1900 A, p. 68. (Lepidosteus.)
 1900 E, p. 57. (Lepidosteus.)
 Eocene (Manti beds); Utah.

Lepidosteus cycliferus (Cope).

- Cope, E. D. 1873 E, p. 634. (Clastes.)
 1877 K, p. 40. (Clastes.)
 1884 O, p. 54, pl. ii, figs. 25-45. (Clastes.)
 Eastman, C. R. 1900 A, p. 68. (Lepidosteus.)
 Woodward, A. S. 1895 A, p. 445. (Clastes.)
 Eocene (Bridger); Wyoming.

Lepidosteus glaber Marsh.

- Marsh, O. C. 1871 G, p. 105.
 Cope, E. D. 1873 E, p. 634. (Clastes.)
 1884 O, p. 53.
 Eastman, C. R. 1900 A, p. 67.
 King, C. 1878 A, p. 376 (Clastes?); p. 405.
 Woodward, A. S. 1895 A, p. 444.
 Eocene (Bridger); Wyoming.

Lepidosteus integer (Cope).

- Cope, E. D. 1877 K, p. 41, pl. xxiv, figs. 1-16. (Clastes.)
 Eocene (Wasatch); New Mexico.

Lepidosteus nahunticus (Cope).

- Cope, E. D. 1869 F, p. 242. (Pneumatosteus.)
 1875 V, p. 31. (Pneumatosteus.)
 Eastman, C. R. 1900 A, p. 68. (Lepidosteus.)
 Miocene; North Carolina.

Lepidosteus notabilis Leidy.

- Leidy, J. 1873 D, p. 98.
 Cope, E. D. 1877 K, p. 40. (Clastes.)
 Eastman, C. R. 1900 A, p. 68. (Lepidosteus.)
 Leidy, J. 1873 B, pp. 192, 349, pl. xxxi, figs. 12, 13.
 Woodward, A. S. 1895 A, p. 444.
 Eocene (Bridger); Wyoming.

Lepidosteus occidentalis Leidy.

- Leidy, J. 1856 F, p. 73. (Lepidotus.)
 Cope, E. D. 1877 G, p. 574. (Lepidosteus.)
 1884 O, p. 52. (Clastes.)
 Leidy, J. 1856 C, p. 120. (Lepidotus haydeni; L. occidentalis.)
 1856 F, p. 73. (Lepidotus haydeni.)
 1860 A, p. 149, pl. xi, figs. 20-23. (Lepidotus.)
 Woodward, A. S. 1895 A, p. 125 (Lepidotus haydeni); p. 126 (L. occidentalis).
 Cretaceous (Laramie); Wyoming.

Lepidosteus osseus (Linn.).

- Linnæus, C. 1758, Syst. Nat., ed. x, p. 313. (Esox.)
 Agassiz, L. 1843 B (1836), ii, pt. ii, p. i, pls. B', B".
 Jordan and Evermann 1896 A, p. 110.
 Leidy, J. 1860 B, p. 118, pl. xxv, fig. 1. (L. bison?).
 Stephan, P. 1900 A, p. 355, fig. 3.
 Williamson, W. C. 1849 A, p. 439, pl. xl, figs. 1, 2.
 Recent; Vermont to Texas: Post-pliocene: South Carolina.

Lepidosteus simplex Leidy.

- Leidy, J. 1873 D, p. 98.
 Cope, E. D. 1877 K, p. 40. (Clastes.)
 Eastman, C. R. 1900 A, p. 74, pl. i, fig. 1.
 Leidy, J. 1873 B, pp. 191, 349, pl. xxxii, figs. 18, 26, 31-43.
 Woodward, A. S. 1895 A, p. 444.
 Eocene (Bridger); Wyoming.

Lepidosteus whitneyi Marsh.

- Marsh, O. C. 1871 G, p. 105.
 Eastman, C. R. 1900 A, p. 67.
 King, C. 1878 A, p. 405.
 Woodward, A. S. 1895 A, p. 445.
 Eocene (Bridger); Wyoming.

Suborder **HALECOMORPHI** Cope.¹

Cope, E. D. 1872 C, p. 330.

1877 N, p. 58.

1878 A, p. 295.

1887 O, p. 1018.

1889 R, p. 857.

Gill, T. 1872 C, p. 21. (Cycloganoidei.)

Günther, A. 1880 A, p. 370.

1881 A, p. 688. (Amioidei.)

Haeckel, E. 1895 A, p. 236. (Amiacei.)

Hay, O. P. 1898 C, p. 341. (No name.)

Heckel, J. J. 1850 A.

Huxley, T. H. 1861 B, p. 24. (Amiadæ, as suborder.)

Steinmann and Döderlein 1890 A, p. 576. (Amioidei.)

Traquair, R. H. 1896 A, p. 125. (Protospondyli, in part.)

Wagner, A. 1861 B, p. 43. (No name.)

Woodward, A. S. 1893 A, p. 413. ("Amioidei.")

1895 A, p. xxii; p. 48. (Protospondyli, in part.)

1898 B, p. 94. (Protospondyli, i part.)

Zittel, K. A. 1890 A, pp. 222, 899.

1896 A, p. 410. (Protospondyli.)

ISOPHOLIDÆ.

Hay, O. P. 1899 E, p. 790.

The generic name *Eugnathus*, being preoccupied, must be succeeded by *Isopholis* Zittel. The family name also must be changed accordingly.

Agassiz, L. 1843 B (1844), ii, p. 97. (Eugnathus.)

Hay, O. P. 1898 C, p. 346. (Eugnathidæ.)

Nicholson and Lydekker 1889 A, p. 986. (Eugnathidæ.)

Quenstedt, F. A. 1852 A, p. 204. (Eugnathus.)

1885 A, p. 319. (Eugnathus.)

Wagner, A. 1863 A, p. 670. (Eugnathus.)

Woodward, A. S. 1895 A, pp. xiv, 285. (Eugnathidæ.)

1898 B, p. 106. (Eugnathidæ.)

Zittel, K. A. 1890 A, p. 212. (Saurodontidæ, in part.)

PTYCHOLEPIS Agassiz. Type *P. bollensis* Agassiz.

Agassiz L., 1832, Neues Jahrb. Mineral., p. 132.

(Fide A. S. Woodward.)

1843 B (1844), ii, pt. II, p. 107.

Bronn, H. G. 1837 A, p. 488.

Egerton, P. G. 1852 B.

Newberry, J. S. 1888 A, p. 65.

Quenstedt, F. A. 1852 A, p. 203.

1885 A, p. 318.

Steinmann, and Döderlein 1890 A, p. 572.

Williamson, W. C. 1849 A, p. 444.

Woodward, A. S. 1895 A, p. 316.

1895 D.

Zittel, K. A. 1890 A, p. 213.

Ptycholepis marshii Newb.

Newberry, J. S. 1878 B.

Lealey, J. P. 1889 A, p. 830, figure.

Newberry, J. S. 1888 A, p. 66, pl. xix, figs. 1-2a.

Woodward, A. S. 1895 A, p. 324.

Triassic; Connecticut.

MACROSEMIIDÆ.

Cope, E. D. 1889 R, p. 858.

Agassiz, L., 1834, Neues Jahrb. Mineral., p. 387.

(Macrosemius.)

Bronn, H. G. 1837 A, p. 492. (Macrosemius.)

Hay, O. P. 1898 C, p. 347.

Wagner, A. 1851 A, p. 73. (Macrosemius.)

Woodward, A. S. 1895 A, p. 163.

MACREPISTIUS Cope. Type *M. arenatus* Cope.

Cope, E. D. 1894 F, p. 441.

Woodward, A. S. 1895 A, p. 173.

Macrepistius arenatus Cope.

Cope, E. D. 1894 F, p. 441, pl. xix, fig. 2.

Cope, E. D. 1894 A, p. 65.

Woodward, A. S. 1895 A, p. 173.

Cretaceous (Trinity); Texas.

PACHYCORMIDÆ.

Woodward, A. S. 1895 A, p. 374.

Cope, E. D. 1875 E, p. 244 A. (Order Actinochiri; family Pelecopteridæ.)

1877 J, p. 822. (Erlisichtheidæ.)

1878 A, p. 299. (Actinochiri; Pelecopteridæ.)

1892 V. (Protosphyrenidæ.)

Crook, A. R. 1892 A, p. 109. (Protosphyrenidæ.)

Dollo, L. 1892 B, p. 182. (Protosphyrenidæ.)

Felix, J. 1890 A, p. 302. (Pelecpteridæ.)

Loomis, F. B. 1900 A, p. 221.

Nicholson and Lydekker 1889 A, p. 996. (Protosphyrenidæ.)

Stewart, A. 1900 A, p. 362.

Woodward, A. S. 1897 A, p. 158.

1898 B, p. 109.

¹ This subordinal name is here employed in a wider sense than was given to it by Cope.

PROTOSPHYRÆNA Leidy. Type *P. ferox* Leidy.

Leidy, J. 1856 O, p. 302.

Agassiz, L. 1843 B, Feuill (1835), p. 55: iii (1839), p. 150, pl. xa, figs. 1-4 (*Ptychodus*, in part); v, pt. 1 (1844), p. 102 (*Saurocephalus*).

Cope, E. D. 1871 D, p. 415.

1872 F, p. 340.

1872 EE, p. 281. (*Erisichthe*, type *E. nitida*.)

1874 C, p. 41. (*Erisichthe*.)

1875 E, pp. 189, 217, 275 (*Erisichthe*); p. 244 C (*Pelecopterus*).

1877 J, p. 821. (*Erisichthe*.)

1878 A, pp. 298, 299. (*Erisichthe* and *Pelecopterus*.)

1878 O. (*Erisichthe*.)

1886 R.

1886 S. (*Protosphyræna* and *Pelecopterus*.)

1888 V.

1892 V.

1892 W.

Davies, W. 1878 A.

1886 A.

Felix, J. 1890 A.

Hay, O. P. 1898 D, p. 26.

Hitchcock, Fanny R. 1888 A. (*Pelecopterus*.)

Leidy, J. 1857 I.

Loomis, F. B. 1900 A, p. 215.

Newton, E. T. 1878 A.

1878, in *Dixon* 1878 A, p. 401.

Nicholson and Lydekker 1889 A, p. 996.

Stewart, A. 1898 A, p. 22.

1900 A, p. 362.

Woodward, A. S. 1888 I, p. 320.

1894 A.

1895 A, p. 399.

1898 B, p. 111.

Woodward, H. 1886 A, p. 4. (*Pelecopterus*.)

Zittel, K. A. 1890 A, p. 78 (*Pelecopterus*, syn. of *Ptychodus*); p. 261 (*Pelecopterus*); p. 263 (*Protosphyræna*).

1896 A, p. 412.

***Protosphyræna angulata* Cope.**

Cope, E. D. 1872 I, pp. 333, 337. (*Portheus*.)

1872 F, p. 342. (*Portheus*.)

1872 EE, p. 281. (*Erisichthe*.)

1875 E, p. 275. (*Erisichthe*.)

1875 V, p. 32.

Felix, J. 1890 A, p. 293. (*Portheus*.)

Loomis, F. B. 1900 A, p. 222.

Newton, E. T. 1878 A, p. 794.

Woodward, A. S. 1895 A, p. 413.

Cretaceous; North Carolina.

***Protosphyræna bentoniana* Stewart.**

Stewart, A. 1898 A, p. 27, pl. i, figs. 2-3b. (*P. bentonia*, *errore typog.*)

1900 A, p. 365. (*P. bentoniana*.)

Cretaceous (Niobrara); Kansas.

***Protosphyræna chirurgus* (Cope).**

Cope, E. D. 1875 E, pp. 244 E, 273, pl. xlviii, fig. 1; pl. liv, fig. 9. (*Pelecopterus*.)

Cretaceous (Niobrara); Kansas.

***Protosphyræna dimidiata* (Cope).**

Cope, E. D. 1878 A, p. 300. (*Erisichthe*.)

Cope, E. D. 1877 J, p. 822. (*E. nitida*, in part.)
Cretaceous (Niobrara); Kansas.

***Protosphyræna gigas* Stewart.**

Stewart, A. 1899 C, p. 110.

Loomis, F. B. 1900 A, p. 221.

Stewart, A. 1900 A, p. 367.

Cretaceous (Pierre); Kansas.

***Protosphyræna gladius* (Cope).**

Cope, E. D. 1873 N, p. 337. (*Portheus*.)

1874 C, p. 40. (*Portheus*.)

1875 E, pp. 244 E, 273, pl. xlv, fig. 12; pl. lii, fig. 3. (*Pelecopterus*.)

Cretaceous (Niobrara); Kansas.

***Protosphyræna nitida* (Cope).**

Cope, E. D. 1872 EE, p. 280. (*Erisichthe*.)

1874 C, p. 42. (*Erisichthe*.)

1875 E, pp. 217, 275, pl. xlviii, figs. 3-8. (*Erisichthe*.)

1877 J, p. 821. (*Erisichthe nitida*, in part; see *P. dimidiata*.)

Felix, J. 1890 A, pls. xli-xiv.

Loomis, F. B. 1900 A, p. 227, pl. xix, figs. 6, 7; p. 223, text fig. 4.c.

Newton, E. T. 1878 A, p. 794.

Woodward, A. S. 1895 A, p. 409.

Cretaceous (Niobrara); Kansas.

***Protosphyræna obliquidens* Loomis.**

Loomis, F. B. 1900 A, p. 225, pl. xx, figs. 1-4.

Cretaceous (Niobrara); Kansas.

***Protosphyræna penetrans* (Cope).**

Cope, E. D. 1877 J, p. 822. (*Erisichthe*.)

Crook, A. R. 1892 A, p. 109.

Felix, J. 1890 A, p. 297, pl. xiv, fig. 1.

Loomis, F. B. 1900 A, p. 224, pl. xix, figs. 1-5; p. 228, text fig. 4. b.

Newton, E. T. 1878 A, p. 795.

Stewart, A. 1898 D, p. 192.

1900 A, p. 369, pl. lxiii; text fig. 4.

Woodward, A. S. 1895 A, p. 409.

Cretaceous (Niobrara); Kansas.

***Protosphyræna perniciosa* (Cope).**

Cope, E. D. 1874 C, p. 41. (*Ichthyodectes*.)

1875 E, pp. 244 D, 273, pl. xlv, fig. 13; pl. xlviii, fig. 2; pl. lii, fig. 2. (*Pelecopterus*.)

Woodward, A. S. 1895 A, p. 414.

Cretaceous (Niobrara); Kansas.

***Protosphyræna recurvirostris* Stewart.**

Stewart, A. 1898 D, p. 191, text fig. 1.

1900 A, p. 366, text fig. 2.

Cretaceous (Niobrara); Kansas.

***Protosphyræna tenuis* Loomis.**

Loomis, F. B. 1900 A, p. 226, pl. xx, figs. 5-7; p. 228, text fig. 4. a.

Cretaceous (Niobrara); Kansas.

***Protosphyræna ziphioides* (Cope).**

Cope, E. D. 1877 J, p. 823. (*Erisichthe*.)

Felix, J. 1890 A, p. 297.
 Loomis, F. B. 1900 A, p. 222. (Erisichthe xiphiodes.)
 Newton, E. T. 1878 A, p. 795.
 Woodward, A. S. 1895 A, p. 413.
 Cretaceous (Niobrara); Kansas.

Protosphyraena occidentalis Stew.

Stewart, A. 1898 A, p. 23, pl. 1, figs. 1a, 1b.
 1900 A, p. 368, pl. 1vii, figs. 1a, 1b.
 Cretaceous (Niobrara); Kansas.

AMIIDÆ.

Baur, G. 1889 F, p. 470.
 Beard, J. 1890 A, p. 184.
 Bridge, T. W. 1877 A.
 1896 A, p. 537.
 Cope, E. D. 1872 C, p. 330.
 1877 N, p. 58.
 1878 A, p. 295.
 1887 O, p. 1018.
 1889 R, p. 857.
 Günther, A. 1870 A, p. 324.
 1890 A, p. 372.
 1881 A, p. 688.

Hay, O. P. 1898 C, p. 347.
 Huxley, T. H. 1872 A, p. 127.
 Jordan and Evermann 1896 A, p. 112.
 Klaatsch, H. 1890 A, p. 178.
 Kolliker, A. 1859 A, p. 7.
 Lütken, C. 1873 A, p. 39.
 Nicholson and Lydekker 1889 A, p. 988.
 Pictet, F. J. 1854 A, p. 134. (Amiades.)
 Steinmann and Döderlein 1890 A, p. 577.
 Woodward, A. S. 1895 A, pp. xvi, 360.
 Zittel, K. A. 1890 A, p. 233. (Halecomorphi.)

AMIOPSIS Kner. Type *A. prisca* Kner.

Kner, R. 1863 A, p. 126.
 Woodward, A. S. 1895 A, p. 371.
 Zittel, K. A. 1890 A, p. 234.

Amiopsis ? dartoni Eastman.

Eastman, C. R. 1899 E, p. 406, pl. xlviii, figs. 1, 2.
 Jurassic; South Dakota.

AMIA Linn. Type *A. calva* Linn.

Linnaeus C., 1766, Syst. Nat., ed. xii, p. 500.
 Allis, E. P. 1889 A.
 1899 A.
 1899 B.
 1900 A.
 Andreae, A. 1893 B.
 Baur, G. 1889 F, p. 469.
 1896 C, p. 662.
 Beard, J. 1890 A, p. 182.
 Bridge T. W. 1877 A.
 1896 A, p. 537.
 Cope, E. D. 1872 C, p. 319.
 1879 N.
 1884 O, pp. 742, 745.
 1897 A, p. 321.
 Davidoff, M. 1880 A.
 1880 B.
 Dean, B. 1895 A.
 Franque, H. 1847 A.
 Gadow and Abbott 1896 A.
 Gegenbaur, C. 1865 B, p. 102, pl. vi, fig. 4; pl. viii, fig. 7.
 1896 A, p. 6.
 Goette, A. 1878 A, p. 468.
 Günther, A. 1870 A, p. 324.
 Hay, O. P. 1895 A.
 1898 C, p. 343.
 Hulke, J. W. 1868 A, p. 424.
 Huxley, T. H. 1872 A, p. 124.
 1876 A, p. 57.
 1883 A.
 Jordan and Evermann 1896 A, p. 112.
 Klaatsch, H. 1890 A, p. 178.
 1896 A, p. 323.
 Kner, R. 1863 A, p. 126.
 Kolliker, A. 1859 A.
 1860 A.
 1863 A, p. 38, figs. 17-19.
 Leidy, J. 1873 B, p. 186. (Protamia and Hypamia).

Leidy, J. 1873 D, p. 98. (Protamia and Hypamia).
 Lütken, C. 1873 A, p. 39.
 Mackintosh, H. W. 1878 A, pls. 1, ii.
 Marsh, O. C. 1877 E.
 Müller, J. 1846 A, p. 201.
 1846 B, p. 78.
 1846 C.
 Newton, E. T. 1899 A, p. 1.
 Nicholson and Lydekker 1889 A, p. 987.
 Owen, R. 1845 B, p. 75.
 Parker, W. K. 1882 A, p. 488.
 Ryder, J. A. 1886 A, p. 1001.
 Sagemehl, M. 1888 A.
 1884 A.
 Shufeldt, R. 1885 B.
 Stannius, H. 1846 A.
 1854 A.
 Stephan, P. 1900 A.
 Thacher, J. K. 1877 B, pl. ii, fig. 6.
 Traquair, R. H. 1896 A, p. 125.
 1900 B, p. 524.
 Van Wijhe, J. W. 1882 A, p. 279.
 Woodward, A. S. 1895 A, p. 367.
 Zittel, K. A. 1890 A, p. 235.

Amia depressa Marsh.

Marsh, O. C. 1871 G, p. 106.
 King, C. 1878 A, p. 406.
 Osborn, Scott, and Speir 1878 A, p. 102. (Identification doubtful.)
 Woodward, A. S. 1895 A, p. 372.
 Eocene (Bridger); Wyoming.

Amia dictyocephala Cope.

Cope, E. D. 1875 G, p. 3.
 1884 O, p. 745, pl. lix, fig. 1.

Woodward, A. S. 1895 A, p. 372.

Eocene (Amyzon shales); Colorado.

"*Amia reticulata*," referred to by Cope in works above cited, appears to be a rejected name for *A. dictyocephala*.

***Amia elegans* Leidy.**

Leidy, J. 1873 D, p. 98. [*Amia* (Hypamia).]

King, C. 1878 A, p. 406. (Hypamia.)

Leidy, J. 1873 B, pp. 189, 349, pl. xxxii, figs. 19-22.

[*Amia* (Hypamia).]

Woodward, A. S. 1895 A, p. 373.

Eocene (Bridger); Wyoming.

***Amia gracilis* Leidy.**

Leidy, J. 1873 D, p. 98. [*Amia* (Protamia).]

1873 B, pp. 188, 348, pl. xxxii, figs. 23, 24.

[*Amia* (Protamia).]

Woodward, A. S. 1895 A, p. 373.

Eocene (Bridger); Wyoming.

***Amia macrospondyla* Cope.**

Cope, E. D. 1891 A, p. 2, pl. i, fig. 2.

Woodward, A. S. 1895 A, p. 372.

Miocene; N. W. Territory, Canada.

***Amia media* Leidy.**

Leidy, J. 1873 D, p. 98. (Protamia.)

King, C. 1878 A, p. 406.

Leidy, J. 1873 B, pp. 188, 348, pl. xxxii, figs. 7-11.

[*Amia* (Protamia).]

Woodward, A. S. 1895 A, p. 373.

Eocene (Bridger); Wyoming.

***Amia newberriana* Marsh.**

Marsh, O. C. 1871 G, p. 106.

King, C. 1878 A, p. 406.

Woodward, A. S. 1895 A, p. 372.

Eocene (Bridger); Wyoming.

***Amia scutata* Cope.**

Cope, E. D. 1875 G, p. 3.

1884 O, p. 745, pl. ix, fig. 1.

Osborn, Scott, and Speir 1878 A, p. 102.

Woodward, A. S. 1895 A, p. 372.

Eocene (Amyzon shales); Colorado.

***Amia uintaensis* Leidy.**

Leidy, J. 1873 D, p. 98. [*Amia* (Protamia).]

King, C. 1878 A, p. 406.

Leidy, J. 1873 B, pp. 185, 348, pl. xxxii, figs. 1-6.

(Protamia.)

Osborn, Scott, and Speir 1878 A, p. 101.

Woodward, A. S. 1895 A, p. 373.

Eocene (Bridger); Wyoming.

***Amia whiteavesiana* Cope.**

Cope, E. D. 1891 A, p. 2, pl. i, fig. 1.

Woodward, A. S. 1895 A, p. 372.

Lower Miocene; N. W. Territory, Canada.

PAPPICHTHYS Cope. Type *P. plicatus* Cope.

Cope, E. D. 1873 E, p. 634.

Andree, A. 1893 B.

Cope, E. D. 1881 D, p. 184.

1882 E, p. 190.

1884 O, p. 56.

Hay, O. P. 1895 A, p. 12.

Newton, E. T. 1899 A, p. 2.

Nicholson and Lydekker 1889 A, p. 991.

Woodward, A. S. 1895 A, p. 373.

Zittel, K. A. 1890 A, p. 236.

***Pappichthys corsoni* Cope.**

Cope, E. D. 1873 E, p. 636.

1873 E, p. 636. (*P. symphysia*.)

1884 O, p. 60, pl. iv, figs. 21-36.

Osborn, Scott, and Speir 1878 A, p. 104.

Woodward, A. S. 1895 A, p. 373.

Eocene (Bridger); Wyoming.

***Pappichthys lævis* Cope.**

Cope, E. D. 1873 E, p. 636.

Cope, E. D. 1884 O, p. 58, pl. iii, figs. 2-11.

Osborn, Scott, and Speir 1878 A, p. 104.

Woodward, A. S. 1895 A, p. 373.

Eocene (Bridger); Wyoming.

***Pappichthys plicatus* Cope.**

Cope, E. D. 1873 E, p. 634.

1884 O, p. 59, pl. iii, figs. 12-19; pl. iv, figs. 1-5.

King, C. 1878 A, p. 406.

Osborn, Scott, and Speir 1878 A, p. 104.

Woodward, A. S. 1895 A, p. 373.

Eocene (Bridger); Wyoming.

***Pappichthys sclerops* Cope.**

Cope, E. D. 1873 E, p. 635.

1884 O, p. 57, pl. iii, fig. 1.

Woodward, A. S. 1895 A, p. 373.

Eocene (Bridger); Wyoming.

Order NEMATOGNATHI Gill.

Gill, T. 1861 A, pp. 11, 56.

Allis, E. P. 1900 A, p. 271.

Bridge and Haddon 1892 A.

Brühl, B. C. 1847 A. ("*Siluroiden*.")

Cope, E. D. 1872 C, p. 330.

1878 A, p. 295.

1884 O, p. 61.

1886 D, p. 1081.

1889 R, p. 857.

Dean, B. 1891 A, p. 315. ("*Siluroidea*.")

Gill, T. 1872 C, pp. xxxviii, 18.

1893 A, p. 182.

1896 C, p. 912. ("*Siluroidea*.")

Göldi, E. A. 1883 A.

1884 A.

Hertwig, O. 1876 A. (*Siluroidei*.)

Jordan and Evermann 1896 A, p. 114.

McMurrich, J. P. 1884 B.

Müller, J. 1846 B, p. 82. ("Siluroiden.")
 Parker, W. K. 1868 A, p. 22. ("Siluroidea.")
 Pollard, H. B. 1894 A.
 1895 A.

Stannius, H. 1854 A. (Siluroidei.)
 Woodward, A. S. 1896 B, p. 119.
 Zittel, K. A. 1890 A, p. 260.

SILURIDÆ.

Bridge, W. J. 1879 A.
 1896 A, p. 550.
 Bridge and Haddon 1889 A.
 1892 A.
 Brühl, B. C. 1847 A. ("Siluroiden.")
 Cope, E. D. 1872 C, p. 331.
 Dareste, C. 1872 A, p. 945. ("Siluroidea.")
 Davis, J. W. 1880 A, p. 355.
 Gegenbaur, C. 1869 B.
 1898 A.
 Gill, T. 1893 A, p. 132.
 Göldi, E. A. 1883 A.
 1884 A.
 Günther, A. 1864 A, p. 1.
 1890 A, p. 559.
 1891 A, p. 692.
 Hertwig, O. 1876 A.
 Huxley, T. H. 1861 B, p. 33.
 Ihering, H. 1891 B, p. 498.
 Jordan, D. S. 1891 A.
 Jordan and Evermann 1896 A, p. 115.
 Klaatsch, H. 1890 A, p. 184.
 Klein, E. F. 1881 A.

Klein, E. F. 1886 A.
 Koken, E. 1891 B, p. 26.
 Kölliker, A. 1859 A. (Siluroidei.)
 McMurrich, J. P. 1884 A.
 1884 B.
 Nicholson and Lydekker 1889 A, p. 1001.
 Newton, E. 1889 A.
 Owen, R. 1845 B, p. 86. ("Siluroidea")
 1886 A, p. 10 *et seq.*
 Pictet, F. J. 1854 A, p. 119. ("Siluriens.")
 Pollard, H. B. 1894 A.
 1894 B.
 1895 A.
 Ryder, J. A. 1886 A, p. 1003. (Amelurus.)
 Sagemehl, M. 1884 A, p. 1.
 Stannius, H. 1854 A. (Siluroidei.)
 Stephan, P. 1900 A. ("Siluridæ.")
 Vaillant, L. 1883 A.
 Woodward, A. S. 1889 C.
 1891 D.
 Wright, R. R. 1884 A.
 Zittel, K. A. 1890 A, p. 260.

RHINEASTES Cope. Type *R. pellatus* Cope.

Cope, E. D. 1872 R, p. 486.
 1873 E, p. 637 (Phareolion, in part); p. 638
 (Rhineastes, with subgenera Rhineastes
 and Astephus).
 1884 O, p. 62. (With subgenera Rhineastes
 and Astephus.)
 1891 A, p. 2.
 Nicholson and Lydekker 1889 A, p. 1002.
 Osborn, Scott, and Speir 1878 A, p. 100. (Sp? indet.
 described.)

Rhineastes arcuatus Cope.

Cope, E. D. 1873 E, pp. 638, 641.
 1884 O, pp. 63, 66, pl. v, fig. 12.
 Leidy, J. 1873 D, p. 99. (Pimelodus antiquus;
 no description.)
 1873 B, pp. 193, 348, pl. xxxii, figs. 44-46.
 (Pimelodus antiquus.)
 Eocene (Bridger); Wyoming.

Rhineastes calvus Cope.

Cope, E. D. 1873 E, pp. 638, 640.
 1884 O, pp. 63, 65, pl. v, figs. 3, 4.
 Eocene (Bridger); Wyoming.

Rhineastes pectinatus Cope.

Cope, E. D. 1874 D, p. 49.

Cope, E. D. 1874 B, p. 459.
 1875 G, p. 3.
 1884 O, p. 747, pl. v, fig. 13.
 Tertiary (Eocene?); Colorado.

Rhineastes peltatus Cope.

Cope, E. D. 1872 R, p. 486.
 1873 E, p. 639.
 1884 O, p. 63, pl. v, figs. 1, 2.
 Eocene (Bridger); Wyoming.

Rhineastes radulus Cope.

Cope, E. D. 1873 E, pp. 638, 639.
 1884 O, p. 67, pl. v, figs. 14-17.
 King, C. 1878 A, p. 405.
 Eocene (Bridger); Wyoming.

Rhineastes rhœas Cope.

Cope, E. D. 1891 A, p. 3, pl. i, fig. 3.
 Oligocene or Lower Miocene; Northwest
 Territory, Canada.

Rhineastes smithii Cope.

Cope, E. D. 1872 R, p. 486.
 1873 E, p. 639.
 1884 O, pp. 63, 64, pl. v, figs. 5-11.
 Eocene (Bridger); Wyoming.

AMEIURUS Rafinesque. Type *A. cupreus* Raf. = *A. natalis* Le Sueur.

Rafinesque, C. S., 1820, Ichthyol. Ohioensis, p. 65.
 Allis, E. P. 1900 A, p. 271.
 Günther, A. 1864 A, p. 98. (Amiurus.)
 1890 A, p. 567. (Amiurus.)
 Jordan and Evermann 1896 A, p. 135.

McMurrich, J. P. 1884 A.
 1884 B.
 Ryder, J. A. 1886 A, p. 1003.
 Wright, R. R. 1884 A.

Ameiurus cancellatus Cope.

Cope, E. D. 1891 A, p. 3, pl. i, figs. 4, 5.
Oligocene; Northwest Territory, Canada.

Ameiurus maconnellii Cope.

Cope, E. D. 1891 A, p. 4, pl. i, figs. 6, 7.
Oligocene; Northwest Territory, Canada.

Order ISOSPONDYLI Cope.

Cope, E. D. 1872 C, p. 332.

1877 N, p. 60.

1878 A, pp. 295, 298.

1884 O, p. 67.

1887 O, p. 1018.

1889 R, p. 857.

Gill, T. 1872 C, p. 15.

Jordan, D. S. 1891 A, p. 112.

Jordan and Evermann 1896 A, p. 407.

Traquair, R. H. 1896 A, p. 126.

1900 B, p. 524.

Woodward, A. S. 1896 A, pp. xix, 446.

1896 B, p. 113.

PHOLIDOPHORIDÆ.

Eastman, C. R. 1899 E, p. 399.

Traquair, R. H. 1900 B, p. 524.

Woodward, A. S. 1890 D, p. 43.

1896 A, p. 446.

Woodward, A. S. 1898 B, p. 114.

Zittel, K. A. 1890 A, p. 212. (Saurodontidæ, in part).

PHOLIDOPHORUS Agassiz. Type *P. bechei* Agassiz.

Agassiz, L. 1832, Neues Jahrb. Mineral., p. 145.

1843 B (1844), II, pt. 1, p. 271.

Eastman, C. R. 1899 E, p. 399.

Glebel, C. G. 1848 A, p. 208.

Kner, R. 1866 B, p. 324.

1866 C, p. 32.

Lütken, C. 1873 A, p. 324.

Quenstedt, F. A. 1852 A, p. 207.

1885 A, p. 319.

Vetter, B. 1881 A, p. 58.

Wagner, A. 1863 A, p. 27.

Woodward, A. S. 1890 D, p. 43.

1895 A, p. 447.

1896 D.

1898 B, p. 114.

Woodward and Sherborn 1890 A, p. 146.

Zittel, K. A. 1890 A, p. 213.

Pholidophorus americanus Eastman.

Eastman, C. R. 1899 A, p. 642.

1899 E, p. 398, pls. xiv-xlvii.

Jurassic; South Dakota.

CHIROCENTRIDÆ.

Günther, A. 1868 A, p. 476.

Cope, E. D. 1870 L. (Saurodontidæ.)

1871 D, p. 414. (Saurodontidæ.)

1872 F, p. 337. (Saurodontidæ.)

1872 I, p. 327. (Saurodontidæ.)

1875 E, p. 183. (Saurodontidæ.)

1877 G, p. 568. (Saurodontidæ.)

1888 V, p. 1019. (Saurocephalidæ.)

1892 V. (Saurocephalidæ.)

Crook, A. R. 1892 A, pp. 111, 121. (Ichthyodectidæ.)

Cuvier and Valenciennes, 1846, Hist. Nat. Poissons, xix, p. 150. ("Chirocentres.")

Günther, A. 1880 A, p. 663.

Loomis, F. B. 1900 A, p. 236.

Nicholson and Lydekker 1889 A, p. 998. (Saurocephalidæ.)

Reis, O. M. 1895 C, p. 182. (Ichthyodectidæ.)

Steinmann and Döderlein 1890 A, p. 580. (Saurocephalidæ.)

Stewart, A. 1898 A, p. 21. (Saurodontidæ.)

1898 C, p. 179. (Saurodontidæ.)

1899 C, p. 107. (Saurodontidæ.)

1900 A, p. 262 (Ichthyodectidæ); p. 310 (Saurodontidæ.)

Woodward, A. S. 1898 B, p. 118. (Saurodontidæ or Ichthyodectidæ.)

Zittel, K. A. 1890 A (1888), p. 262. (Saurocephalidæ.)

ICHTHYODECTINÆ.

Crook, A. R. 1892 A, pp. 111, 121. (Ichthyodectidæ, part.)

Stewart, A. 1899 C, p. 107. (Ichthyodectidæ.)

1900 A, p. 262. (Ichthyodectidæ.)

PORTHEUS Cope. Type *P. molossus* Cope.

Cope, E. D. 1871 K, p. 175.

1872 F, pp. 339, 341.

1872 I, pp. 330, 331.

1873 N, p. 338.

1874 C, p. 39.

1875 E, pp. 194, 189, 204, 273, pl. lv, fig. 1.

1892 V.

Crook, A. R. 1892 A, pp. 114, 122.

Günther, A. 1880 A, p. 500.

Hay, O. P. 1898 B, p. 646. (Xiphactinus.)

1898 D, p. 25, figs. 1-16. (Xiphactinus.)

? Leidy, J. 1870 H, p. 12. (Xiphactinus; type *X. audax*.)

Loomis, F. B. 1900 A, p. 246.

Newton, E. T. 1877 A.
1878 B.

Nicholson and Lydekker 1889 A, p. 998.

Stewart, A. 1898 B, p. 115. (*Xiphactinus*.)

1898 C, pp. 180, 184. (*Xiphactinus*.)

1899 A, p. 19. (*Xiphactinus*.)

1899 C, p. 107. (*Xiphactinus*.)

1900 A, p. 265. (*Xiphactinus*.)

Woodward, A. S. 1888 I, p. 310.

1898 B, p. 118.

Zittel, K. A. 1890 A, p. 262.

***Portheus ? audax* (Leidy).**

Leidy, J. 1870 H, p. 12. (*Xiphactinus*.)

Cope, E. D. 1870 L, p. 533. (*Saurocephalus*.)

1871 D, pp. 415, 418. (*Saurocephalus*.)

1872 F, pp. 341, 348. (? *Xiphactinus*.)

1875 E, p. 276. (*Xiphactinus*.)

1898 A (1870), p. 29. (*X. audax* = *Saurocephalus thaumas*.)

Hay, O. P. 1898 D, p. 27. (*Xiphactinus*.)

Leidy, J. 1873 B, pp. 290, 348, pl. xvii, figs. 9, 10. (*Xiphactinus*.)

Stewart, A. 1898 B, p. 115, figures.

1900 A, p. 267, pls. xxxiii-xlvii (in part?).

Cretaceous (Niobrara); Kansas.

Probably identical with one of the other species of *Portheus*, but it may also belong to some other genus.

***Portheus brachygnathus* (Stewart).**

Stewart, A. 1898 B. (*Xiphactinus*.)

1899 C, p. 107. (*Xiphactinus*.)

1900 A, p. 293, pl. xlv, figs. 3, 4. (*Xiphactinus*.)

Cretaceous (Niobrara); Kansas.

***Portheus lestrio* Cope.**

Cope, E. D. 1873 N, p. 338.

1875 E, pp. 201, 274, pls. xlii, figs. 1-3; xlvii, fig. 1.

Crook, A. R. 1892 A, p. 123.

Hay, O. P. 1898 D, pp. 27, 52. (*Xiphactinus*.)

Stewart, A. 1898 B, p. 118, footnote. (*Xiphactinus*.)

Newton, E. T. 1877 A, p. 509.

Cretaceous (Niobrara); Kansas.

***Portheus lowii* Stewart.**

Stewart, A. 1898 A, p. 24, pl. ii, fig. 2.

Hay, O. P. 1898 D, p. 27. (*Xiphactinus*.)

Stewart, A. 1900 A, p. 293, pl. xlviii, fig. 2. (*Xiphactinus*.)

Cretaceous (Benton); Kansas.

***Portheus molossus* Cope.**

Cope, E. D. 1871 K, p. 175.

1872 F, pp. 324, 338, 342.

1872 I, pp. 328, 333.

1874 C, p. 39.

1875 E, pp. 50, 183, 273, pls. xxxix, xl, figs.

1-9; xli; xlv, figs. 5, 10, 11; xlv, figs. 9-11;

Crook, A. R. 1892 A, pp. 114, 122, pl. xviii.

Hay, O. P. 1898 D, pp. 35, 52, figs. 3, 6, 8. (*Xiphactinus*.)

Newton, E. T. 1877 A, p. 509.

Stewart, A. 1898 B, p. 116, figs. (Syn. of *Xiphactinus audax*.)

1900 A, p. 267, part? of pls. xxxiii-xlvii.

(*Xiphactinus audax*.)

Zittel, K. A. 1890 A, p. 263, fig. 268.

Cretaceous (Niobrara); Kansas.

***Portheus mudgei* Cope.**

Cope, E. D. 1874 C, p. 40.

1875 E, pp. 203, 274.

Crook, A. R. 1892 A, p. 123, pl. xxxix.

Hay, O. P. 1898 D, pp. 27, 52. (*Xiphactinus*.)

Newton, E. T. 1877 A, p. 509.

Cretaceous (Niobrara); Kansas.

***Portheus thaumas* Cope.**

Cope, E. D. 1870 L, p. 533. (*Saurocephalus*.)

1871 D, pp. 418, 422. (*Saurocephalus*.)

1872 F, p. 342.

1872 I, pp. 333, 335.

1874 C, p. 40.

1875 E, pp. 196, 273, pl. xliii, figs. 1-4; xlv, figs. 1-4.

Crook, A. R. 1892 A, p. 123.

Hay, O. P. 1898 D, p. 27, figs. 2, 7, 10-12, 15, 16.

Newton, E. T. 1877 A, p. 509. (*Xiphactinus*.)

Osborn, Scott and Speir 1878 A, p. 99. (Identification doubtful.)

Stewart, A. 1898 B, p. 116, figs. (Syn. of *Xiphactinus audax*.)

1900 A, p. 267, part? of pls. xxxiii-xlvii. (*Xiphactinus audax*.)

Cretaceous (Niobrara); Kansas, Colorado.

ICHTHYODECTES Cope.

Cope, E. D. 1870 L, p. 536.

1871 D, p. 421.

1872 F, pp. 340, 343.

1872 I, pp. 330, 338.

1875 E, pp. 189, 205, 275.

1892 V.

Crook, A. R. 1892 A, p. 111.

Loomis, F. B. 1900 A, p. 236.

Newton, E. T. 1877 A, p. 520.

1878 B.

Nicholson and Lydekker 1889 A, p. 998.

Stewart, A. 1898 C, p. 180.

1899 A, p. 20.

1900 A, p. 205.

Woodward, A. S. 1888 I, p. 311.

Type *I. ctenodon* Cope.

Woodward, A. S. 1898 B, p. 118.

Zittel, K. A. 1890 A, p. 263.

***Ichthyodectes acanthicus* Cope**

Cope, E. D. 1877 D, p. 177.

Hay, O. P. 1898 E, p. 227.

Stewart, A. 1900 A, p. 301.

Cretaceous (Niobrara); Kansas.

***Ichthyodectes anaides* Cope.**

Cope, E. D. 1872 I, p. 339.

1872 I, p. 343.

1874 C, p. 40.

1875 E, pp. 206, 274, pl. xlv, figs. 14, 15; pl. xlv, figs. 1-8.

- Crook, A. R. 1892 A, pp. 111, 123, pl. xv.
 Hay, O. P. 1898 E, p. 226, fig. 2.
 Loomis, F. B. 1900 A, p. 244
 Stewart, A. 1900 A, p. 296, pl. xlix, figs. 1-3.
 Cretaceous (Niobrara); Kansas.

Ichthyodectes cruentus Hay.

- Hay, O. P. 1898 E, p. 225, figs. 1, 3, 4.
 Stewart, A. 1900 A, p. 300, pl. i, figs. 8-10b.
 Cretaceous (Niobrara); Kansas.

Ichthyodectes ctenodon Cope.

- Cope, E. D. 1870 L, p. 536.
 1871 D, p. 421.
 1872 F, p. 343.
 1872 I, pp. 339, 340, 345.
 1874 C, p. 40.
 1875 E, pp. 207, 241, 274, pl. xlv, figs. 1-4.
 Crook, A. R. 1892 A, p. 123.
 Hay, O. P. 1898 E, p. 226.
 Loomis, F. B. 1900 A, p. 244, pl. xxiii, figs. 7, 8.
 Stewart, A. 1900 A, p. 303, pl. xlix, figs. 5-7; pl. li,
 figs. 12, 13.
 Cretaceous (Niobrara); Kansas.

Ichthyodectes goodeanus Cope.

- Cope, E. D. 1877 D, p. 176.
 Hay, O. P. 1898 A, p. 227.
 Cretaceous (Niobrara); Kansas.

Ichthyodectes hamatus Cope.

- Cope, E. D. 1872 I, pp. 339, 340.
 1872 F, p. 343.

- Cope, E. D. 1874 C, p. 40.
 1875 E, pp. 209, 274, pl. xlv, fig. 5.
 Crook, A. R. 1892 A, p. 123.
 Hay, O. P. 1898 E, pp. 225, 226.
 Loomis, F. B. 1900 A, p. 243, pl. xxiii, figs. 9a, 9b.
 Stewart, A. 1900 A, p. 298, pl. xlviii, fig. 2; pl. i,
 figs. 1-7.

Cretaceous (Niobrara); Kansas.

Ichthyodectes multidentatus Cope.

- Cope, E. D. 1872 I, pp. 339, 342.
 1872 F, p. 343.
 1874 C, p. 41.
 1875 E, pp. 212, 275, pl. i, figs. 6, 7
 Crook, A. R. 1892 A, p. 123.
 Hay, O. P. 1898 E, p. 227.
 Loomis, F. B. 1900 A, p. 243.
 Cretaceous (Niobrara); Kansas.

Ichthyodectes parvus Stewart.

- Stewart, A. 1900 A, p. 302, pl. li, figs. 1-11 (I.
 acanthicus, not of Cope); p. 302 (I. parvus).
 Cretaceous (Niobrara); Kansas.

Ichthyodectes prognathus Cope.

- Cope, E. D. 1870 L, p. 532. (Saurocephalus.)
 1871 D, p. 417. (Saurocephalus.)
 1872 F, pp. 340, 343.
 1872 I, p. 340.
 1874 C, p. 41.
 1875 E, pp. 210, 274, pl. xlv, figs. 6-10.
 Crook, A. R. 1892 A, p. 123.
 Hay, O. P. 1898 E, p. 226.
 Cretaceous (Niobrara); Kansas.

SAUROCEPHALINÆ.

- Stewart, A. 1899 C, p. 107. (Saurodontidæ.) | Stewart, A. 1900 A, p. 310. (Saurodontidæ.)

SAUROCEPHALUS Harlan.. Type *S. lanciformis* Harlan, not of Agassiz.

- Harlan, R. 1824 A.
 Agassiz, L. 1843 B (1844), v, p. 101. (In part.)
 Cope, E. D. 1870 L, pp. 529, 530.
 1870 P.
 1871 A.
 1871 D, p. 415.
 1872 F, pp. 340, 343.
 1872 I, pp. 330, 342.
 1873 N, p. 339. (Daptinus, with *S. phleboto-*
mus as type.)
 1875 E, pp. 189, 215, 275. (Saurodon.)
 1888 V. (Saurodon.)
 1892 V. (Saurodon.)
 1898 A.
 Crook, A. R. 1892 A, p. 120.
 Davies, W. 1878 A.
 Giebel, C. G. 1848 A, p. 88.
 Harlan, R. 1834 B, p. 85. (Saurodon.)
 1835 B, p. 286.
 1835 B, p. 288. (Saurodon.)
 1835 H.
 Hay, O. P. 1899 B, p. 302.
 Hays, I. 1830 A. (Saurodon, with *S. leanus* as type.)
 Kramberger, D. 1881 A.
 Leidy, J. 1856 O, p. 302.

- Leidy, J. 1857 I, p. 95.
 Loomis, F. B. 1900 A, p. 247 (Saurodon); f. 249
 (Saurocephalus).
 Newton, E. T. 1878 A.
 1878 B. (Daptinus.)
 Nicholson and Lydekker 1889 A, p. 998 (Sauro-
 cephalus); p. 999 (Saurodon).
 Owen, R. 1845 B, p. 130.
 Pictet, F. J. 1854 A, p. 98 (Saurocephalus); p. 94
 (Saurodon).
 Stewart, A. 1898 A, p. 22. (Saurodon, Daptinus,
 Saurocephalus.)
 1898 C. (Saurodon, Saurocephalus.)
 1900 A, p. 311 (Saurodon); p. 323 (Sauro-
 cephalus).
 Woodward, A. S. 1888 I, p. 312. (Daptinus.)
 Zittel, K. A. 1890 A, p. 264.

Saurocephalus arapahovius Cope.

- Cope, E. D. 1872 I, p. 343.
 1872 F, pp. 344, 348.
 1874 C, p. 41.
 1875 E, pp. 216, 275; pl. xlix, fig. 6.
 Loomis, F. B. 1900 A, p. 251. (*S. arapahovius*, syn. of
S. lanciformis.)

Newton, E. T. 1878 A.

Stewart, A. 1898 C, p. 186.

1900 A, p. 323.

Cretaceous (Niobrara); Kansas.

Saurocephalus broadheadi (Stewart.)

Stewart, A. 1898 A, p. 24, pl. ii, figs. 1a-1c. (Daptin-
nus.)

Loomis, F. B. 1900 A, p. 252, pl. xxiv, fig. 6; pl. xxv,
fig. 1.

Stewart, A. 1898 C, p. 186. (Saurodon.)

1900 A, p. 313, pl. xlviii, figs. 1a-1c.

Cretaceous (Niobrara); Kansas.

Saurocephalus dentatus Stewart.

Stewart, A. 1898 A, p. 25, pl. i, figs. 3a, 3b.

Loomis, F. B. 1900 A, p. 251. (Syn. of *S. lancif-*
formis.)

Stewart, A. 1898 C, p. 186.

1900 A, p. 323, pl. lviii, figs. 3, 4.

Cretaceous (Niobrara); Kansas.

Saurocephalus ferox (Stewart.)

Stewart, A. 1898 C, p. 183, pl. xv; pl. xvi, figs. 1-3.
(Saurodon.)

1900 A, p. 319, pls. lvi, lvii. (Saurodon.)

Cretaceous (Niobrara); Kansas.

Saurocephalus lanciformis Harlan.

Harlan, R. 1824 A, pl. xii. (Not of Agassiz, L.
1844 A.)

Cope, E. D. 1870 L, p. 530.

1871 D, p. 415.

1875 E, pp. 218, 275.

Davies, W. 1878 A, p. 260.

Glebel, C. G. 1848 A, p. 89.

Harlan, R. 1834 B, p. 83.

1835 B, pp. 286, 289.

1835 H.

Hay, O. P. 1899 B, p. 299, figs. 1-4.

Hays, I. 1830 A, p. 477, pl. xvi, fig. 11.

Hilgard, E. W. 1860 A, pp. 142, 389.

Leidy, J. 1856 O, p. 302.

1857 I, pl. vi, figs. 8-11.

Loomis, F. B. 1900 A, p. 251, pl. xxv, figs. 2-5.

Morton, S. G. 1835 A, p. 277.

Newton, E. T. 1878 A.

Owen, R. 1845 B, p. 130, pl. lv.

Pictet, F. J. 1854 A, p. 93.

Stewart, A. 1898 C, p. 186.

Cretaceous (Niobrara); Nebraska, Kansas.

Saurocephalus leanus (Hays).

Hays, I. 1830 A, p. 477, pl. xvi, figs. 1-10. (Sau-
rodon.)

Agassiz, L. 1844 A, p. 205. (Cimolichthys levisien-
sis, in part.)

Cope, E. D. 1870 L, p. 531. (Saurodon.)

1871 D, p. 421. (Saurodon.)

1875 E, p. 275. (Saurodon.)

Davies, W. 1878 A, p. 260.

Glebel, C. G. 1848 A, p. 89. (Saurodon.)

Harlan, R. 1834 B, p. 83.

1835 B, p. 287 (*S. leanus*); p. 288 ("*S. lean*").

Leidy, J. 1856 O, p. 302.

1857 I, pl. vi, figs. 12-15.

Morton, S. G. 1835 A, p. 277.

Newton, E. T. 1878 A.

Woodward, A. S. 1888 B.

Zittel, K. A. 1890 A, p. 264.

Cretaceous; New Jersey.

Saurocephalus pamphagus Hay.

Hay, O. P. 1899 B, p. 303, fig. 5.

Cretaceous (Niobrara); Kansas.

Saurocephalus phlebotomus Cope.

Cope, E. D. 1870 L, p. 530.

1871 D, p. 416.

1872 I, p. 343. (Saurodon.)

1873 N, p. 339. (Daptinus.)

1874 C, p. 41. (Daptinus.)

1875 E, pp. 213, 275, pl. xlvii, figs. 3, 4, 6; pl.

xlix, figs. 1-4. (Daptinus.)

1877 G, p. 588. (Saurodon.)

1888 V.

1892 V.

Crook, A. R. 1892 A, pp. 120, 123.

Loomis, F. B. 1900 A, p. 248, pl. xxiv, figs. 1-5.
(Saurodon.)

Newton, E. T. 1878 B.

Stewart, A. 1898 C, p. 186. (Saurodon.)

1900 A, p. 312, pl. lvii, figs. 4, 5. (Saurodon.)

Zittel, K. A. 1890 A, p. 264. (Daptinus.)

Cretaceous (Niobrara); Kansas.

Saurocephalus pygmaeus (Loomis).

Loomis, F. B. 1900 A, p. 248, pl. xxiii, fig. 10.
(Saurodon.)

Cretaceous (Niobrara); Kansas.

Saurocephalus xiphirostris (Stewart).

Stewart, A. 1898 C, p. 179, pl. xiv. (Saurodon.)

1900 A, p. 314, pl. lv. (Saurodon.)

Cretaceous (Niobrara); Kansas.

GILLICUS Hay. Type *Ichthyodectes arcuatus* Cope.

Hay, O. P. 1898 E, p. 230.

Loomis, F. B. 1900 A, p. 237. (Syn. of *Ichthy-*
odectes.)

Stewart, A. 1900 A, p. 304.

Gillicus arcuatus (Cope).

Cope, E. D. 1875 E, pp. 193, 2f1, 274, pl. xlvii, figs.
7-9. (Portheus; the figures probably not belong-
ing to this species.)

1877 D, p. 177. (Ichthyodectes.)

1892 V, p. 942.

Crook, A. R. 1892 A, p. 112, pl. xvi (I. polymicro-
dus); p. 123 (Portheus).

Hay, O. P. 1898 D, pp. 30, 42. (I. arcuatus, I.
polymicrodus.)

1898 E, pp. 228, 230. (G. arcuatus, G. poly-
microdus.)

Loomis, F. B. 1900 A, p. 242, pl. xxiii, figs. 1-6,
text fig. 7. (Ichthyodectes occidentalis.)

Newton, E. T. 1877 A, p. 509.

Stewart, A., p. 307, pls. lii-liv.

Cretaceous (Niobrara); Kansas.

STRATODONTIDÆ.

Cope, E. D. 1872 I, p. 348.

1872 F, p. 345.

1872 I, p. 343. (Pachyrhizodontidæ, part.)

1875 E, p. 218.

Crook, A. J. 1892 A, p. 109.

Nicholson and Lydekker 1889 A, p. 998. (Pachyrhizodontidæ, part.)

Reis, O. M. 1896 C, p. 170.

Stewart, A. 1900 A, p. 326.

Zittel, K. A. 1890 A, p. 268.

STRATODUS Cope. Type *S. apicalis* Cope.

Cope, E. D. 1872 I, p. 348.

1872 F, pp. 345, 346.

1875 E, pp. 219, 226.

Reis, O. M. 1896 C, p. 170.

Stewart, A. 1900 A, p. 327.

Woodward, A. S. 1888 I, p. 314.

Zittel, K. A. 1890 A, p. 269.

Stratodus apicalis Cope.

Cope, E. D. 1872 I, p. 349.

Cope, E. D. 1872 F, pp. 346, 348.

1874 C, p. 47.

1875 E, pp. 227, 279, pl. xlix, figs. 6-8.

Stewart, A. 1900 A, p. 328, pl. lx; pl. lxi, fig. 1.

Cretaceous (Niobrara); Kansas.

Stratodus oxypogon Cope.

Cope, E. D. 1877 D, p. 180.

Cretaceous (Niobrara); Kansas.

EMPO Cope. Type *E. nepaholica* Cope.

Cope, E. D. 1872 I, p. 347.

1872 F, p. 345.

1872 I, p. 348. (Cimolichthys.)

1874 C, p. 45.

1875 E, pp. 219, 228, 279.

Loomis, F. B. 1900 A, p. 267. (Syn. of Cimolichthys.)

Nicholson and Lydekker 1889 A, p. 999.

Stewart, A. 1900 A, p. 330.

Zittel, K. A. 1890 A, p. 268.

Empo contracta Cope.

Cope, E. D. 1874 C, p. 46.

1875 E, pp. 232, 279, pl. liii, figs. 14-17.

Loomis, F. B. 1900 A, p. 273, pl. xxvii, figs. 8, 9. (Cimolichthys.)

Stewart, A. 1900 A, p. 339.

Cretaceous (Niobrara); Kansas.

Empo lisbonensis Stewart.

Stewart, A. 1899 C, p. 111.

Loomis, F. B. 1900 A, p. 222. (Syn. of *E. merrillii*.)

Stewart, A. 1900 A, p. 337, pl. lxi, figs. 10a, 10b.

Cretaceous (Pierre); Kansas.

Empo merrillii Cope.

Cope, E. D. 1874 C, p. 46.

Cope, E. D. 1875 E, pp. 232, 279, pl. liii, figs. 10-13.

Loomis, F. B. 1900 A, p. 271, pl. xxvii, fig. 7. (Cimolichthys.)

Cretaceous (Niobrara); Kansas.

Empo nepaholica Cope.

Cope, E. D. 1872 I, p. 347.

1872 F, p. 345.

1872 I, p. 351. (Cimolichthys sulcata.)

1874 C, p. 46. (*E. sulcata*, *E. nepaholica*.)

1875 E, pp. 230, 279, pls. xlix, fig. 9; pl. l, fig. 8; lii, fig. 1; liii, figs. 3-5. (*E. nepaholica*.)

Loomis, F. B. 1900 A, p. 271, pl. xxvii, figs. 1-3. (Cimolichthys nepaholica.)

Stewart, A. 1900 A, p. 332. (*E. nepaholica*.)

Cretaceous (Niobrara); Kansas.

Empo semianiceps Cope.

Cope, E. D. 1872 I, p. 351. (Cimolichthys.)

1872 F, p. 326. (Cimolichthys.)

1874 C, p. 46.

1875 E, pp. 233, 279, pl. liii, figs. 1, 2, 6-9.

Loomis, F. B. 1900 A, p. 273, pl. xxvii, figs. 4-6. (Cimolichthys.)

Stewart, A. 1900 A, p. 338, pl. lxi, figs. 6-9.

Cretaceous (Niobrara); Kansas.

PACHYRHIZODONTIDÆ.

Cope, E. D. 1872 I, p. 343.

1872 F, p. 344.

Loomis, F. B. 1900 A, p. 258. (Salmonidæ, part.)

Nicholson and Lydekker 1889 A, p. 998.

Stewart, A. 1900 A, p. 349. (Salmonidæ, part.)

PACHYRHIZODUS Agassiz. Type *A. basalis* Agassiz.

Agassiz, L., 1850, Dixon's Geol. Sussex, p. 374.

Cope, E. D. 1872 F, p. 344.

1872 I, p. 344.

1875 E, pp. 219, 220, 276.

1887 D, p. 177.

Loomis, F. B. 1900 A, p. 258.

Nicholson and Lydekker 1889 A, p. 999.

Pictet, F. J. 1854 A, p. 94.

Reis, O. M. 1896 C, p. 170.

Stewart, A. 1900 A, p. 349.

Woodward, A. S. 1888 I, p. 313.

Zittel, K. A. 1890 A, p. 268.

Pachyrhizodus caninus Cope.

Cope, E. D. 1872 I, p. 344.

1872 F, p. 348.

Cope, E. D. 1874 C, p. 42.

1875 E, pp. 221, 276, pl. I, figs. 1-4.

Crook, A. J. 1892 A, p. 109.

Loomis, F. B. 1900 A, p. 262, pl. xxvii, figs. 10-12.

Stewart, A. 1900 A, p. 355, pl. lxx, figs. 3-6.

Cretaceous (Niobrara); Kansas.

Pachyrhizodus curvatus Loomis.

Loomis, F. B. 1900 A, p. 264 (P. recurvatus); p. 265, pl. xxv, figs. 6-8 (P. curvatus).

Cretaceous (Niobrara); Kansas.

Pachyrhizodus kingii Cope.

Cope, E. D. 1872 I, p. 346.

1872 F, p. 348.

1874 C, p. 42.

1875 E, pp. 223, 276, pl. xlv, fig. 11.

Loomis, F. B. 1900 A, p. 263. (Syn. of P. latimentum.)

Cretaceous (Niobrara); Kansas.

Pachyrhizodus latimentum Cope.

Cope, E. D. 1872 I, p. 346.

1872 F, p. 348.

1874 C, p. 42.

1875 E, pp. 223, 276, pl. I, fig. 5; pl. II, figs. 1-7.

Loomis, F. B. 1900 A, p. 263, pl. xxvi, figs. 7, 8.

CONOSAURUS Gibbes. Type C. bowmani Gibbes.

Gibbes, R. W. 1851 A, p. 9.

Cope, E. D. 1872 F, p. 345.

1875 E, p. 276.

Leidy, J. 1868 G, p. 202. (Conosaurops, to replace Conosaurus.)

Loomis, F. B. 1900 A, p. 261.

Zittel, K. A. 1890 A, p. 268. (Syn. of Pachyrhizodus.)

ORICARDINUS Cope. Type O. tortus Cope.

Cope, E. D. 1877 D, p. 177.

Oricardinus sheareri Cope.

Cope, E. D. 1872 I, p. 347. (Pachyrhizodus.)

1872 F, p. 348. (Pachyrhizodus.)

1874 C, p. 43. (Pachyrhizodus.)

1875 E, pp. 225, 276. (Pachyrhizodus.)

1877 D, p. 177. (Oricardinus.)

Stewart, A. 1900 A, p. 357, pl. lxxviii; pl. lxx, figs. 9, 10.

Cretaceous (Niobrara); Kansas.

Pachyrhizodus leptognathus Stewart.

Stewart, A. 1898 D, p. 193, pl. xvii, fig. 1.

Loomis, F. B. 1900 A, p. 264, pl. xxvi, figs. 10-16.

Stewart, A. 1900 A, p. 351, pl. lxxix, fig. 1.

Cretaceous (Niobrara); Kansas.

Pachyrhizodus leptopsis Cope.

Cope, E. D. 1874 C, p. 42.

1875 E, pp. 225, 276, pl. II, figs. 8-8c.

Loomis, F. B. 1900 A, p. 264. (P. leptopsis.)

Stewart, A. 1900 A, p. 354, pl. lxx, fig. 1.

Cretaceous (Niobrara); Kansas.

Pachyrhizodus minimus Stewart.

Stewart, A. 1899 B, p. 37, figure.

1900 A, p. 361, text fig. 1.

Cretaceous (Niobrara); Kansas.

Pachyrhizodus velox Stewart.

Stewart, A. 1898 D, p. 193, pl. xvii, fig. 2.

Loomis, F. B. 1900 A, p. 265. (P. ferox.)

Stewart, A. 1900 A, p. 353, pl. xlix, fig. 9.

Cretaceous (Niobrara); Kansas.

Conosaurus bowmani Gibbes.

Gibbes, R. W. 1851 A, p. 10, pl. III, figs. 1-5.

Cope, E. D. 1875 E, p. 276.

Gibbes, R. W. 1850 A. (Name only.)

Leidy, J. 1868 G, p. 202. (Conosaurops.)

Cretaceous (Greensand); New Jersey.

ENCHODONTIDÆ.

Loomis, F. B. 1900 A, p. 267. (Enchodidae.)

Nicholson and Lydekker 1889 A, p. 997.

Stewart, A. 1900 A, p. 373.

ENCHODUS Agassiz. Types E. faujasi and E. halocyon.

Agassiz, L. 1843 B (1844), v, p. 64.

1844 A.

Cope, E. D. 1872 F, p. 347.

1872 I, p. 354.

1875 E, pp. 219, 238, 301 (Enchodus); pp.

219, 235, 277 (Phasganodus).

Dames, W. 1887 B, p. 71.

Davis, J. W. 1887 C, p. 521.

Dollo, L. 1892 B, p. 183.

Günther, A. 1880 A, p. 433.

Heckel, J. J. 1843 A, p. 240. (Isodus.)

Leidy, J. 1873 B, p. 289.

Loomis, F. B. 1900 A, p. 273.

Nicholson and Lydekker 1889 A, p. 998.

Pictet, F. J. 1854 A, p. 81.

Woodward, A. S. 1888 I, p. 315.

1889 A.

Zittel, K. A. 1890 A, p. 269.

Enchodus amicrodus Stewart.

Stewart, A. 1898 D, p. 193, text-fig. 3.

Loomis, F. B. 1900 A, p. 280.

Stewart, A. 1900 A, p. 379, text fig. p. 378.

Cretaceous (Niobrara); Kansas.

Enchodus anceps Cope.

- Cope, *E. D.* 1872 I, p. 352. (Cimolichthys.)
 1874 C, p. 44. (Enchodus?)
 1875 E, pp. 236, 277 (Phaaganodus); p. 301 (Enchodus).

Loomis, F. B. 1900 A, p. 277.

Cretaceous (Niobrara); Kansas.

Enchodus calliodon Cope.

- Cope, *E. D.* 1872 I, p. 354.
 1872 F, pp. 347, 348.
 1874 C, p. 44.
 1875 E, pp. 240, 278, 301.

Loomis, F. B. 1900 A, p. 277.

Cretaceous (Niobrara); Kansas.

Enchodus carinatus (Cope).

- Cope, *E. D.* 1869 F, p. 241. (Sphyræna.)
 1871 D, p. 424. (Sphyræna.)
 1872 F, p. 347. (Cimolichthys.)
 1875 E, pp. 80, 235, 277. (Phaaganodus.)

Loomis, F. B. 1900 A, p. 277.

Cretaceous (Niobrara); Kansas.

Enchodus dolichus Cope.

- Cope, *E. D.* 1875 E, pp. 239, 278, 300, pl. liv, figs. 8, 8a.

1885 Z, p. 3.

Loomis, F. B. 1900 A, p. 279, pl. xxvii, figs. 16, 17.

Stewart, A. 1900 A, p. 377, pl. lxx, fig. 12.

Cretaceous (Niobrara); Kansas.

Enchodus ferox Leidy.

- Leidy, J. 1856 C, p. 397.
 Cope, *E. D.* 1875 E, p. 277.
 Emmons, E. 1860 A, p. 214, fig. 182^a.
 Loomis, F. B. 1900 A, p. 277.
 Morton, S. G. 1834 A, p. 32, pl. xii, fig. 1. ("Sphyræna.")

Cretaceous; New Jersey.

Enchodus gentryi (Cope).

- Cope, *E. D.* 1875 H, p. 362. (Phaaganodus.)
 Miocene; New Jersey.

Enchodus gladiolus Cope.

- Cope, *E. D.* 1872 I, p. 358. (Cimolichthys.)
 1874 C, p. 43. (Phaaganodus?)
 1875 E, pp. 235, 277 (Phaaganodus); 301, pl. xlii, fig. 7 (Enchodus).

Cretaceous (Niobrara); Kansas.

Enchodus oxytomus Cope.

- Cope, *E. D.* 1875 E, p. 278.
 Loomis, F. B. 1900 A, p. 277.
 Cretaceous; New Jersey.

Enchodus parvus Stewart.

- Stewart, A. 1898 D, p. 192, text fig. 2.
 Loomis, F. B. 1900 A, p. 280. (Syn. of *E. shumardii*.)
 Stewart, A. 1900 A, p. 378, text fig.
 Cretaceous (Niobrara); Kansas.

Enchodus petrosus Cope.

- Cope, *E. D.* 1874 C, p. 44.
 1875 E, pp. 239, 278, pl. liv, figs. 4-6.
 Loomis, F. B. 1900 A, p. 278, pl. xxvii, figs. 13-15.
 Stewart, A. 1900 A, p. 376, pl. lxx, fig. 11.
 Cretaceous (Niobrara); Kansas.

Enchodus pressidens Cope.

- Cope, *E. D.* 1869 F, p. 241.
 1875 E, p. 277.
 Loomis, F. B. 1900 A, p. 277.
 Cretaceous; New Jersey.

Enchodus semistriatus Marsh.

- Marsh, O. C. 1870 E, p. 230.
 Cope, *E. D.* 1875 E, p. 277. (Phaaganodus.)
 Loomis, F. B. 1900 A, p. 277.
 Cretaceous; New Jersey.)

Enchodus shumardii Leidy.

- Leidy, J. H. 1856 M, p. 257.
 Cope, *E. D.* 1874 C, p. 44.
 1875 E, p. 279.
 Leidy, J. 1873 B, pp. 289, 347, pl. xvii, fig. 20.
 Loomis, F. B. 1900 A, p. 280, pl. xxvii, figs. 18, 19.
 Stewart, A. 1900 A, p. 375.
 Whiteaves, J. F. 1889 B, p. 194, pl. xxvi, figs. 7 a, b, c.
 Cretaceous; Dakota, Manitoba.

Enchodus tetræcus Cope.¹

- Cope, *E. D.* 1875 E, p. 278.
 Loomis, F. B. 1900 A, p. 277 (E. tetræcus).
 Stewart, A. 1900 A, p. 375. (E. tetræcus.)
 Cretaceous; Delaware, New Jersey.

Enchodus sp. indet.

- Cope, *E. D.* 1871 D, p. 424.
 Cretaceous (Niobrara); Kansas.

TETHEODUS Cope. Type *T. pephredo* Cope.

- Cope, *E. D.* 1874 C, p. 43.
 1875 E, pp. 219, 237, 277.
 Loomis, F. B. 1900 A, p. 278. (Syn. of *Enchodus*.)
 Zittel, K. A. 1890 A, p. 270.

Tetheodus pephredo Cope.

- Cope, *E. D.* 1874 C, p. 43.

- Cope, *E. D.* 1875 E, pp. 237, 277, pl. liv, figs. 1-3.
 Loomis, F. B. 1900 A, p. 278. (T. pephredo; syn. of *Enchodus petrosus*.)
 Cretaceous (Niobrara); Kansas.

¹ Agassiz (1843 B (1844), v, p. 65, pl. xxv c, figs. 1, 2; pl. xxxiii, figs. 2-4) reports *E. halocyon* from Cretaceous of Maryland. Its original locality is Europe. The determination was probably erroneous.

CIMOLICHTHYS Leidy. Type *C. lewesiensis* Leidy.*Leidy, J.* 1856 O, p. 302.*Agassiz, L.* 1843 B, v, pt. i, p. 102. (*Saurocephalus*, *Saurodon*, not of Harlan and Hays.)*Cope, E. D.* 1870 L, p. 530.

1871 D, p. 415.

1872 F, p. 346.

1875 E, pp. 219, 235, 277, 300. (*Phasganodus*, in part.)*Dames, W.* 1887 A. (*Phasganodus*=*Saurodon* *Agassiz*.)*Dixon, F.* 1878 A, p. 411.*Leidy, J.* 1857 F, p. 167. (*Phasganodus*, type *P. dirus*.)1873 B, p. 347. (*Phasganodus*.)*Loomis, F. B.* 1900 A, p. 267.*Woodward, A. S.* 1888 I, p. 316.*Zittel, K. A.* 1890 A, p. 269 (*Cimolichthys*); p. 270 (*Phasganodus*).***Cimolichthys dirus* (Leidy.)***Leidy, J.* 1857 F, p. 167. (*Phasganodus*.)*Cope, E. D.* 1874 C, p. 43. (*Phasganodus*.)1875 E, p. 277. (*Phasganodus*.)*Dames, W.* 1887 A, p. 74. (*Saurodon*.)*Leidy, J.* 1873 B, pp. 289, 347, pl. xvii, figs. 23, 24. (*Phasganodus*.)*Stewart, A.* 1900 A, p. 376, pl. lxx, fig. 14. (*Enchodus*.)

Cretaceous (Fox Hills); North Dakota.

ALBULIDÆ.

Günther, A. 1868 A, pp. 468, 469. (*Albulina*.)*Jordan and Evermann* 1896 A, p. 410.*Loomis, F. B.* 1900 A, p. 252.SYNTEGMODUS Loomis. Type *S. altus* Loomis.*Loomis, F. B.* 1900 A, p. 252.***Syntegmodus altus* Loomis.***Loomis, F. B.* 1900 A, p. 253, pl. xxii, fig. 9.

Cretaceous (Niobrara); Kansas.

APSOPELIX Cope. Type *A. sauriformis* Cope.*Cope, E. D.* 1871 D, p. 423.

1875 E, p. 241.

Zittel, K. A. 1890 A, p. 312.

A genus of uncertain position.

Apsopelix sauriformis* Cope.Cope, E. D.* 1871 D, p. 424.

1874 C, p. 47.

1875 E, pp. 242, 279, pl. xlii, fig. 6.

Cretaceous (Benton); Kansas.

CYCLOTOMODON Cope. Type *C. vagrans* Cope.*Cope, E. D.* 1876 F, p. 113.

Systematic position doubtful.

Cyclotomodon vagrans* Cope.Cope, E. D.* 1876 F, p. 113.

Phosphate deposit; South Carolina.

CLUPEIDÆ.

Agassiz, L. 1843 B (1844), v, p. 96. ("Halécoides," in part.)

1845 A, p. 292.

Bridge, T. W. 1896 A, p. 557.*Brühl, B. C.* 1847 A. ("Clupeen.")*Cope, E. D.* 1872 C, p. 333.

1884 O, p. 67.

Darste, C. 1872 A, p. 1087.*Grassi, B.* 1883 A.*Günther, A.* 1868 A, p. 381.

1880 A, p. 656.

1881 A, p. 693.

Hitchcock, Fanny R. 1888 B.*Jordan, D. S.* 1891 A.*Jordan and Evermann* 1896 A, p. 417.*Klein, E. F.* 1879 A, p. 106.*Klein, E. F.* 1886 A.*Kölliker, A.* 1859 A. (*Clupeinæ*.)*Marck, W.* 1863 A, p. 41. (*Clupeoidel*.)*Müller, J.* 1846 C, p. 790.*Nicholson and Lydekker* 1889 A, p. 994.*Owen, R.* 1845 B, p. 135.

1866 A, p. 10, et seq.

Parker, W. K. 1868 A, p. 56.*Quenstedt, F. A.* 1885 A, p. 367. (*Clupacel*.)*Stannius, H.* 1846 A. ("Clupeiden.")

1854 A.

Steinmann and Döderlein 1890 A, p. 579.*Stephan, P.* 1900 A. ("Clupéidés.")*Vaillant, L.* 1883 A.*Vrolik, A. J.* 1873 A, p. 267.*Zittel, K. A.* 1890 A, p. 271.

DIPLOMYSTUS Cope. Type *D. dentatus* Cope.

Cope, E. D. 1877 I, p. 808.

A few references are here included to the literature of the genus *Clupea*, which is closely related to *Diplomystus* and to which most of the species of the latter were originally assigned.

Agassiz L. 1843 B (1844), v, p. 115. (*Clupea*.)

Cope, E. D. 1884 O, p. 73.

1885 Z, p. 4.

Günther, A. 1868 A, p. 412. (*Clupea*.)

Jordan and Evermann 1896 A, p. 421. (*Clupea*.)

Müller, J. 1843 A, p. 216.

Nicholson and Lydekker 1889 A, p. 996.

Pictet, F. J. 1854 A, p. 113. (*Clupea*.)

Quenstedt, F. A. 1885 A, p. 367. (*Clupea*.)

Reis, O. M. 1895 C, p. 167. (*Clupea*.)

Woodward, A. S. 1895 C, p. 1.

Zittel, K. A. 1890 A, p. 276. (*Clupea*, *Diplomystus*.)

***Diplomystus altus* (Leidy).**

Leidy, J. 1873 B, pp. 196, 347, pl. xvii, fig. 2. (*Clupea*.)

Cope, E. D. 1877 I, p. 811.

1877 Z, p. 570.

1877 AA.

1884 O, p. 79.

King, C. 1878 A, p. 394. (*Clupea*.)

Eocene (Green River); Wyoming.

***Diplomystus analis* Cope.**

Cope, E. D. 1877 I, p. 809.

1877 Z, p. 570.

1877 AA.

1884 O, p. 75, pl. vii, fig. 4; pl. viii, fig. 3; pl. x, fig. 2.

Eocene (Green River); Wyoming.

***Diplomystus dentatus* Cope.**

Cope, E. D. 1877 I, p. 808.

1877 Z, p. 570.

1877 AA.

1884 O, p. 74, pl. x, fig. 1.

Eocene (Green River); Wyoming.

***Diplomystus humilis* (Leidy).**

Leidy, J. 1856 M, p. 256. (*Clupea*.)

Cope, E. D. 1870 H, p. 382. (*Clupea pusilla*, *C. humilis*.)

1871 E, p. 429. (*Clupea pusilla*, *C. humilis*.)

1877 I, p. 811.

1877 Z, p. 570.

1877 AA.

1884 O, p. 77, pl. ix, fig. 8; pl. x, fig. 4.

King, C. 1878 A, p. 394. (*Clupea humilis*, *C. pusilla*.)

Leidy, J. 1871 C, p. 369. (*Clupea humilis*, *C. pusilla*.)

1872 B, pp. 353, 372. (*Clupea*.)

1873 B, pp. 195, 347, pl. xvii, fig. 1. (*Clupea*.)

Eocene (Green River); Wyoming.

***Diplomystus pectorosus* Cope.**

Cope, E. D. 1877 I, p. 810.

1877 Z, p. 570.

1877 AA.

1884 O, p. 76, pl. x, fig. 3.

Eocene (Green River); Wyoming.

***Diplomystus theta* Cope.**

Cope, E. D. 1874 D, p. 51. (*Clupea*.)

1874 B, p. 461. (*Clupea*.)

1877 Z, p. 570.

1884 O, p. 77.

Eocene (Green River); Wyoming.

SPANIODON Pictet. Type *S. blondellii* Pictet.

Pictet, F. J., 1850, Poiss. foss. du Liban, p. 84.

Cope, E. D. 1878 F, p. 69.

1878 H H, p. 57.

Davis, J. W. 1887 C, p. 587.

Pictet, F. J. 1854 A, p. 115.

Zittel, K. A. 1890 A, p. 274.

***Spaniodon simus* Cope.**

Cope, E. D. 1878 F, p. 69.

Cretaceous (Niobrara); S. Dakota.

SARDINIUS Marck. Type *Osmerus cordieri* Agassiz.

Marck, W., 1858, Zeitschr. deutsch. geol. Gesellsch., x, p. 245.

Cope, E. D. 1878 A, p. 70.

Davis, J. W. 1887 C, p. 567.

Marck, W. 1863 A, p. 43.

Zittel, K. A. 1890 A, p. 275.

***Sardinus? blackburnii* Cope.**

Cope, E. D. 1891 H, p. 654.

1892 B.

Oligocene?; S. Dakota.

***Sardinus lineatus* Cope.**

Cope, E. D. 1878 F, p. 71.

Cretaceous (Niobrara); S. Dakota.

***Sardinus nasutus* Cope.**

Cope, E. D. 1878 F, p. 70.

Cretaceous (Niobrara); S. Dakota.

***Sardinus percrassus* Cope.**

Cope, E. D. 1878 F, p. 72.

Cretaceous (Niobrara); S. Dakota.

SALMONIDÆ.

Agassiz, L. 1843 B (1844), v, p. 96. (Halécoides, in part.)

1845 A, p. 306.

Bridge, T. W. 1896 A, p. 550.

Bruch, 1862, Osteol. Rheinlachs.

Brühl, B. C. 1847 A.

Cope, E. D. 1872 C, p. 333.

Darvett, C. 1872 A, p. 1175.

Gill, T. 1894 C, p. 117.

Grassl, B. 1883 A.

Günther, A. 1866 A, p. 1.

1880 A, p. 630.

1881 A, p. 693.

Jordan and Evermann 1896 A, p. 460 (Salmonidæ); p. 519 (Argentifinidæ).

Klein, E. F. 1879 A, p. 107.

Kölliker, A. 1859 A. (Salmones.)

Müller, J. 1843 A, p. 214. (Salmones.)

Nicholson and Lydekker 1889 A, p. 994.

Owen, R. 1845 B, p. 141. ("Salmonoids.") 1866 A.

Parker, W. K. 1868 A, p. 56.

1874 A.

Quenstedt, F. A. 1885 A, p. 365. (Salmonel.)

Reis, O. M. 1896 C, p. 170.

Stannius, H. 1854 A. (Salmones.)

Stephan, P. 1900 A. (Salmones.)

Ussow, S. 1900 A. ("Salmoniden.")

Vaillant, L. 1883 A.

Vrolik, A. J. 1873 A, p. 248.

Zittel, K. A. 1890 A, p. 279.

RHABDOFARIO Cope. Type *R. lacustris* Cope.

Cope, E. D. 1870 M, p. 546.

Zittel, K. A. 1890 A, p. 280.

Rhabdofario lacustris Cope.

Cope, E. D. 1870 M, p. 546.

Pleistocene; Idaho.

LEPTICHTHYS Stewart. Type *L. agilis* Stewart.

Stewart, A. 1899 E, p. 78.

1900 A, p. 372.

Leptichthys agilis Stewart.

Stewart, A. 1899 E, p. 78.

1900 A, p. 372, pl. lxxii, fig. 1.

Cretaceous; Kansas.

MALLOTUS Cuvier. Type *M. villosus* (Müller).

Cuvier, G., 1829, Règne Anim., ed. ii, vol. ii, p. 305.

Agassiz, L. 1843 B (1844), v., p. 98.

Günther, A. 1866 A, p. 170.

1880 A, p. 647.

Jordan and Evermann 1896 A, p. 520.

Zittel, K. A. 1890 A, p. 280.

Mallotus villosus (Müller).

Müller, 1877, Prod. Zool. Dan., p. 245. (Clupea.)

Agassiz, L. 1843 B (1844), v., p. 98, pl. lx.

Dawson, J. W. 1877 B, p. 341.

1890 A, p. 86.

Günther, A. 1866 A, p. 170.

Jordan and Evermann 1896 A, p. 521.

Logan, W. E. 1863 A, p. 916, fig. 494.

Quenstedt, F. A. 1885 A, p. 366.

Woodward, A. S. 1889 E, p. 230.

Zittel, K. A. 1890 A, p. 280, fig. 290.

Living in northern seas: Pleistocene; Canada.

GONORHYNCHIDÆ.

Cope, E. D. 1872 C, p. 333.

Gill, T. 1872 C, p. 16.

Günther, A. 1868 A, p. 373.

1880 A, p. 652.

Günther, A. 1881 B, p. 698.

Nicholson and Lydekker 1889 A, p. 999.

Woodward, A. S. 1896 B.

Zittel, K. A. 1890 A, p. 285. (Gonorhynchidæ.)

NOTOGONEUS Cope. Type *N. osculus* Cope.

Cope, E. D. 1885 Y, p. 1091.

1886 T, p. 163.

Nicholson and Lydekker 1889 A, p. 999.

Woodward, A. S. 1896 B, p. 500.

Zittel, K. A. 1890 A, p. 285.

Notogoneus osculus Cope.

Cope, E. D. 1885 Y, p. 1091.

1886 T, p. 163, pl. i, figs. 4, 5.

Whitfield, R. P. 1890 A, p. 117.

Woodward, A. S. 1896 B, p. 500, pl. xviii, figs. 1, 2.

Eocene (Green River); Montana.

OSTEOGLOSSIDÆ.

- Bridge, T. W. 1895 A, p. 302. (Osteoglossum.)
 Cope, E. D. 1872 C, p. 333.
 1884 O, pp. 67, 68.
 Gegenbaur, C. 1898, p. 356. (Osteoglossum.)
 Günther, A. 1868 A, vii, p. 377.
 Hyrtl, J. 1854 A, p. 73.
 Loomis, F. B. 1900 A, p. 229. (Plethodidæ, part.)
 Müller, J. 1843 A, p. 217. (Osteoglossum.)

- Müller, J. 1846 A. (Osteoglossum.)
 1846 C. (Osteoglossum.)
 Nicholson and Lydekker 1889 A, p. 999.
 Owen, R. 1845 B, p. 137, pl. xlviii. (Osteoglossum.)
 Reis, O. M. 1895 C, p. 169.
 Zittel, K. A. 1890 A, p. 281.

PHAREODUS Leidy. Type *P. acutus* Leidy.

- Leidy, J. 1873 D, p. 99.
 Cope, E. D. 1871 E, p. 430. (Osteoglossum.)
 1873 E, p. 637. (Phareodon, in part.)
 1877 I, p. 807. (Dapedoglossus, type *D. testis*.)
 1878 Z, p. 570. (Dapedoglossus.)
 1884 O, p. 68. (Dapedoglossus.)
 Leidy, J. 1873 B, p. 193.
 Nicholson and Lydekker 1889 A, p. 999. (Dapedoglossus.)
 Zittel, K. A. 1890 A, p. 281. (Dapedoglossus.)

Phareodus acutus Leidy.

- Leidy, J. 1873 D, p. 99.
 Cope, E. D. 1873 E, p. 637 (Phareodon acutus);
 p. 638 (*P. sericeus*).
 1884 O, pp. 69, 72, pl. v, figs. 18-20. (Dapedoglossus.)
 King, C. 1878 A, p. 406.
 Leidy, J. 1873 B, pp. 193, 349, pl. xxxii, figs. 47-51.
 Eocene (Brigder); Wyoming.

Phareodus æquipinnis (Cope).

- Cope, E. D. 1878 F, p. 77. (Dapedoglossus.)
 1884 O, p. 73, pl. vii, fig. 2. (Dapedoglossus.)
 Eocene (Green River); Wyoming.

Phareodus encaustus (Cope).

- Cope, E. D. 1871 E, p. 430. (Osteoglossum.)
 1877 I, p. 808. (Dapedoglossus.)
 1877 AA (Dapedoglossus.)
 1878 Z, p. 570. (Dapedoglossus.)
 1884 O, p. 70, pl. vi, fig. 1. (Dapedoglossus.)
 Leidy, J. 1872 B, p. 372. (Osteoglossum.)
 Eocene (Green River); Wyoming.

Phareodus testis Cope.

- Cope, E. D. 1877 I, p. 807.
 1877 AA. (Dapedoglossus.)
 1878 Z, p. 570.
 1884 O, p. 71, pl. vii, fig. 1; pl. viii, figs. 1, 2.
 Eocene (Green River); Wyoming.

ANOGMIVS Cope. Type *A. contractus* Cope.

- Cope, E. D. 1871 J, p. 170.
 1872 I, p. 354.
 1875 E, pp. 220 A, 240.
 1877 D, p. 178.
 Loomis, F. B. 1900 A, p. 229 (Thryptodus, type *T. zitteli*); p. 235 (Pseudothryptodus, type *P. intermedius*); p. 254 ("Agnomius," a syn. of Osmeroides).
 Sauvage, H. E. 1879 A, p. 52. (Syn. ? of Ischyrrhiza.)
 Stewart, A. 1900 A, p. 340.
 Zittel, K. A. 1890 A, p. 268. (Syn. of Pachyrhizodus.)
 Without doubt, close comparison will much reduce the number of species of this genus.

Anogmivs aratus Cope.

- Cope, E. D. 1877 G, p. 585.
 Stewart, A. 1900 A, p. 340.
 Cretaceous (Niobrara); Kansas.

Anogmivs contractus Cope.

- Cope, E. D. 1871 J, p. 170.
 1872 I, p. 354.
 1875 E, p. 240 (Anogmivus); 220 A (Pachyrhizodus).
 Cretaceous (Niobrara); Kansas.

Anogmivs evolutus Cope.

- Cope, E. D. 1877 D, p. 179.
 Loomis, F. B. 1900 A, p. 257, pl. xxvi, figs. 5, 6. (Osmeroides.)

- Stewart, A. 1898 D, p. 196. (Beryx multidentatus.)
 1900 A, p. 347, pl. lxv, figs. 8, 9, 10; pl. lxvii.
 Cretaceous (Niobrara); Kansas.

Anogmivs favirostris Cope.

- Cope, E. D. 1877 D, p. 178.
 Loomis, F. B. 1900 A, p. 256. (Osmeroides.)
 Cretaceous (Niobrara); Kansas.

Anogmivs intermedius (Loomis).

- Loomis, F. B. 1900 A, p. 236, pl. xxii, figs. 3-8. (Pseudothryptodus.)
 Cretaceous (Niobrara); Kansas.

Anogmivs polymicrodus Stewart.

- Stewart, A. 1898 D, p. 196. (Beryx?).
 Loomis, F. B. 1900 A, p. 256, pl. xxvi, figs. 1-4. (Osmeroides.)
 Stewart, A. 1899 A, p. 20.
 1899 D, p. 117, pl. xxxi.
 1900 A, p. 342, pl. lxiv; pl. lxv, figs. 1-7; pl. lxvi; pl. lxvii, fig. "phar."
 Cretaceous (Niobrara); Kansas.

Anogmivs rotundus (Loomis).

- Loomis, F. B. 1900 A, p. 235, pl. xxii, figs. 1, 2. (Thryptodus.)
 Cretaceous (Niobrara); Kansas.

Anogmivs zitteli (Loomis).

- Loomis, F. B. 1900 A, p. 234, pl. xxi, figs. 1-10. (Thryptodus.)
 Cretaceous (Niobrara); Kansas.

INCERTÆ SEDIS.

PROBALLOSTOMUS Cope Type *P. longulus* Cope.

Cope, E. D. 1891 H, p. 655.

Proballostomus longulus Cope.

Cope, E. D. 1891 H, p. 655.

Cope, E. D. 1892 B, p. 285.
Oligocene?; S. Dakota.

Order PLECTOSPONDYLI.

Cope, E. D. 1872 C, p. 332.

1878 A, p. 295.

Gill, T. 1893 A, p. 131.

Jordan and Evermann 1896 A, p. 160.

Woodward, A. S. 1898 B, p. 119.

CYPRINIDÆ.

Bloch, L. 1900 A. ("Cobitiden," "Cypriniden.")

Bridge, T. W. 1896 A, p. 547.

Brühl, B. C. 1847 A. ("Cyprinen.")

Cope, E. D. 1871 H. (>Cobitidæ.)

1871 I, p. 99. (>Cobitidæ.)

1872 C, p. 332. (Catostomidæ, Cyprinidæ,
Cobitidæ.)

1883 L, p. 161. (>Cobitidæ.)

Dareste, C. 1872 A, p. 934. ("Cyprinoides.")

Gill, T. 1872 C, pp. 17, 18. (Catostomidæ, Cy-
prinidæ, Cobitidæ.)1893 A, pp. 131, 132. (Catostomidæ, Cyprin-
idæ, Cobitidæ.)

Grawi, B. 1883 A.

Günther, A. 1868 A, p. 3.

1890 A, p. 587.

1881 A, p. 692.

Ihering, H. 1891 B.

Jordan, D. S. 1891 A.

Jordan and Evermann 1896 A, p. 161 (Catosto-
midæ); p. 199 (Cyprinidæ).

Klein, E. F. 1879 A, p. 110.

Kölliker, A. 1859 A. (Cyprinoidel.)

Koken, E. 1891 B, p. 26.

Leidy, J. 1871 C, p. 369.

Müller, A. 1853 A.

Müller, J. 1846 C, p. 183. (Cyprinoidel.)

Owen, R. 1845 B, p. 144. ("Cyprinoids.")
1866 A.

Parker, W. K. 1868 A.

Pictet, F. J. 1854 A, p. 102. (Cyprinoides.)

Quenstedt, F. A. 1885 A, p. 361.

Sagemehl, M. 1884 A, p. 1.

1891 A. (Cyprinidæ, Cobitidæ.)

Segond, L. A. 1873 B, p. 529. ("Cyprinoides.")

Stannius, H. 1854 A. (Cyprinoidel.)

Stephan, P. 1900 A.

Vaillant, L. 1883 A.

Vrolik, A. J. 1873 A, p. 265.

Zittel, K. A. 1890 A, p. 282. (Cyprinoidæ.)

CATOSTOMINÆ.

Cope, E. D. 1872 C, p. 332. (Catostomidæ.)

Gill, T. 1872 C, p. 17. (Catostomidæ.)

1893 A, p. 131. (Catostomidæ.)

Günther, A. 1868 A, p. 12.

Günther, A. 1880 A, p. 588. (Catostomina).

Jordan and Evermann 1896 A, p. 161. (Cato-
stomidæ.)

Sagemehl, M. 1891 A.

Protocatostomus Whitfield. Type *P. constablei* Whitfield.

Whitfield, R. P. 1890 A, p. 120.

Protocatostomus constablei Whitfield.

Whitfield, R. P. 1890 A, p. 120, pl. iv.

Eocene; Wyoming.

See *Notogonus oculus*, p. 392.Catostomus Le Sueur. Type *C. catostomus* Le Sueur.

Le Sueur, 1817, Jour. Acad. Nat. Sci. Phila., i, p. 89.

Jordan and Evermann 1896 A, p. 178.

Sagemehl, M. 1891 A.

Catostomus batrachops Cope.

Cope, E. D. 1883 L, p. 151.

1889 F.

1889 S, p. 980.

Pleistocene (Equus beds); Oregon.

Catostomus cristatus Cope.

Cope, E. D. 1883 L, p. 160.

Pleistocene (Equus beds); Idaho.

Catostomus labiatus Ayres.

Ayres, W. O. 1855, Proc. Califor. Acad. Sci., i, p. 32.

Cope, E. D. 1883 L, p. 150.

1889 F.

1889 S.

Jordan and Evermann 1896 A, p. 177.

Recent and Pleistocene; Klamath Lake, Ore-
gon.**Catostomus shoshonensis** Cope.

Cope, E. D. 1883 L, p. 159.

Pleistocene (Equus beds); Idaho.

AMYZON Cope. Type *A. mentale* Cope.

Cope, E. D. 1872 P, p. 480.

1873 E, p. 642.

1884 O, pp. 742, 748.

Osborn, Scott, and Speir 1878 A, p. 99.

Zittel, K. A. 1890 A, p. 284.

Amyzon brevipinne Cope.

Cope, E. D. 1893 D.

Tertiary (Amyzon shales); British Columbia.

Amyzon commune Cope.

Cope, E. D. 1874 D, p. 50.

1874 B, p. 460.

1875 G, p. 3.

1884 O, p. 749, pl. v, fig. 21.

Osborn, Scott, and Speir 1878 A, p. 99.

Tertiary (Amyzon shales); Colorado.

Amyzon fusiforme Cope.

Cope, E. D. 1875 G, p. 5.

1884 O, p. 751.

Tertiary (Amyzon shales); Colorado.

Amyzon mentale Cope.

Cope, E. D. 1872 P, p. 481.

1872 MM, p. 775.

1873 E, p. 643.

1884 O, p. 749, pl. lix, fig. 2; lx, fig. 2.

Tertiary (Amyzon shales); Colorado.

Amyzon pandatum Cope.

Cope, E. D. 1875 G, p. 4.

1884 O, p. 750.

Tertiary (Amyzon shales); Colorado.

CYPRININÆ.

This subfamily is equivalent to the *Cyprinidæ* as recognized by many of the authors referred to under that family.

Brühl, B. C. 1847 A. ("Cyprinen.")

Günther, A. 1880 A, p. 589. (Cyprininae.)

DIASTICHUS Cope. Type *D. macrodon* Cope.

Cope, E. D. 1870 M, p. 539.

1871 H, p. 55.

1883 L, pp. 154, 158.

Zittel, K. A. 1890 A, p. 284.

Diastichus macrodon Cope.

Cope, E. D. 1870 M, p. 539.

1883 L, p. 158.

Late Tertiary; Idaho.

Diastichus parvidens Cope.

Cope, E. D. 1870 M, p. 540.

1883 L, p. 158.

Late Tertiary; Idaho.

Diastichus strangulatus Cope.

Cope, E. D. 1883 L, p. 158.

Late Tertiary; Idaho.

APHELICHTHYS Cope. Type *A. lindahlii* Cope.

Cope, E. D. 1893 B, p. 19.

Aphelichthys lindahlii Cope.

Cope, E. D. 1893 B, p. 19.

Pliocene or Pleistocene; S. Illinois.

RUTILUS Raf. Type *Cyprinus rutilus* Raf.

Rafinesque, C. S., 1820, Ichthyol. Ohloensis, pp. 48, 50.

Cope, E. D. 1870 M, p. 543. (Anchybopsis, type *A. latus*.)

1878 C, p. 229. (Anchybopsis.)

1883 L, p. 142. (Myloleucus.)

Günther, A. 1868 A, p. 267. (Leuciscus, in part.)

Jordan and Evermann 1896 A, p. 243.

Zittel, K. A. 1890 A, p. 284. (Anchybopsis.)

Rutilus altarcus (Cope).

Cope, E. D. 1878 C, p. 229. (Anchybopsis.)

1883 L, p. 146. (Leucus.)

1889 F. (Leucus.)

1889 S, p. 980. (Leucus.)

Pleistocene (Equus); Oregon.

Rutilus condonianus (Cope).

Cope, E. D. 1883 L, p. 156. (Leucus.)

Pleistocene (Equus); Oregon.

Rutilus gibbarcus (Cope).

Cope, E. D. 1878 C, p. 230. (Alburnops.)

1878 C, p. 229. (Alburnops brevilarcus.)

1883 L, p. 143. (Myloleucus.)

1889 F, p. 161. (Myloleucus.)

1889 S, p. 980. (Myloleucus.)

Pleistocene (Equus); Oregon.

Rutilus latus (Cope).

Cope, E. D. 1870 M, p. 543. (Anchybopsis.)

1883 L, pp. 144, 146, 156. (Leucus.)

Pleistocene (Equus); Idaho.

NOTROPIS Raf. Type *N. atherinoides* Raf.

Rafinesque, C. S., 1818, Amer. Month. Mag., ii, p. 204.
Jordan and Evermann 1896 A, p. 254.

Notropis angustarcus (Cope).

Cope, E. D. 1878 C, p. 230. (Alburnops.)

Cope, E. D. 1883 L, p. 142. (Cliola.)
 1889 F. (Cliola.)
 1889 S, p. 980. (Cliola.)
 Pleistocene (Equus); Oregon.

LEUCISCUS Cuvier. Type, none designated.

Cuvier, G., 1817, Règne Anim., ed. i, p. 194.
Cope, E. D. 1870 M, p. 540 (Oligobelus, type *O. arciferus*); p. 541 (Semotilus).
 1883 L, p. 156. (Squalius.)

Günther, A. 1868 A, p. 207.

1880 A, p. 598.

Jordan and Evermann 1896 A, p. 228.

Zittel, K. A. 1890 A, p. 282 (Leuciscus); p. 284 (Oligobelus).

Leuciscus arciferus (Cope).

Cope, E. D. 1870 M, p. 541. (Oligobelus.)
 1883 L, p. 158. (Squalius.)
 Pleistocene; Idaho.

Leuciscus bairdii (Cope).

Cope, E. D. 1870 M, p. 542. (Semotilus.)
 1883 L, p. 158. (Squalius.)
 Pleistocene; Idaho.

Leuciscus laminatus (Cope).

Cope, E. D. 1870 M, p. 541. (Oligobelus.)
 1883 L, p. 157. (Squalius.)
 Pleistocene; Idaho.

Leuciscus posticus (Cope).

Cope, E. D. 1870 M, p. 541. (Semotilus.)
 1883 L, p. 157. (Squalius.)
 Pleistocene; Idaho.

Leuciscus reddingi (Cope).

Cope, E. D. 1883 L, p. 157. (Squalius.)
 Pleistocene; Idaho.

Leuciscus turneri Lucas.

Lucas, F. A. 1900 F, p. 333, pl. viii.
 Miocene; Nevada.

MYLOCYPRINUS Leidy. Type *M. robustus* Leidy.

Leidy, J. 1870 K, p. 70.
Cope, E. D. 1870 M, pp. 539, 543.
 1883 L, p. 154.

Leidy, J. 1871 C, p. 369.

Peters, 1880, Monatsber. Akad. Wissensch. Berlin, p. 925, figure. (Mylopharyngodon, type *Leuciscus ethiops*.)

Zittel, K. A. 1890 A, p. 284.

Mylocyprinus inflexus Cope.

Cope, E. D. 1883 L, p. 154.
 Pleistocene; Idaho.

Mylocyprinus robustus Leidy.

Leidy, J. 1870 K, p. 70.
Cope, E. D. 1870 M, p. 544 (M. kingii, M. robustus); p. 545 (M. longidens).
 1883 L, p. 155. (M. robustus, with M. kingii and longidens as subspecies.)
Leidy, J. 1871 C, p. 369.
 1873 B, pp. 262, 348, pl. xvii, figs. 11-17.
 Pleistocene; Idaho.

Order PHTHINOBRANCHII nom nov.

Interclavicles developed. Elements of the branchial arches more or less reduced. Post-temporal simple. Basis cranii simple. Head more or less produced. Ventral fins abdominal, subabdominal, or wanting. Most families

with more or less well-developed dermal armature.

In this order it is intended to unite the *Hemibranchii* and the *Lophobranchii*.

Suborder HEMIBRANCHII Cope.

Cope, E. D., 1871, Trans. Amer. Philos. Soc., xiv, p. 456.
 1872 C, p. 338.
Gill, T. 1872 C, p. 13.

Gill, T. 1893 A, p. 137.
Jordan and Evermann 1896 A, p. 741.
Ussow, S. 1900 A, p. 227. (Gasterosteiformes.)

DERCETIDÆ.

Cope, E. D. 1878 F, p. 67.
Agassiz, L. 1843 B, ii, pt. ii, p. 258. (Genus Dercetia.)

Günther, A. 1880 A, p. 666. (Hoplopleuridæ.)
Lütken, C. 1873 A, p. 17. (Dercetiformes.)
Marck, W. 1863 A, p. 58. (Dercetiformes.)

Nicholson and Lydekker 1889 A, p. 997.
 Pictet, F. J. 1884 A, p. 213 (Hoplopleurides); p. 216,
 pl. xxxii, figs. 13-16 (Dercetes).
 Pictet and Humbert 1886 A, p. 90. (Hoplopleu-
 rides.)

Reis, O. M. 1895 C, pp. 169, 180, 182. (Hoplopleu-
 rides.)
 Williston, S. W. 1899 B, p. 115.
 1900, in Stewart A. 1900 A, p. 380.
 Zittel, K. A. 1890 A, p. 264. (Hoplopleuridae.)

ICHTHYOTRINGA Cope. Type *I. tenuirostris* Cope.

Cope, E. D. 1878 F, p. 69.
 1878 HH, p. 57.
 Williston, S. W. 1899 B, p. 115.
 1900, in Stewart A. 1900 A, p. 382.

***Ichthyotringa tenuirostris* Cope.**
 Cope, E. D. 1878 F, p. 69.
 Cretaceous (Niobrara); South Dakota.

LEPTECODON Williston. Type *L. rectus* Willist.

Williston, S. W. 1899 B, p. 113.
***Leptecodon rectus* Willist.**
 Williston, S. W. 1899 B, p. 113, pl. xxvi.

Williston, S. W. 1900, in Stewart, A. 1900 A, p. 380,
 pl. lxxiii.
 Cretaceous (Niobrara); Kansas.

TRIENASPIS Cope. Type *T. virgulatus* Cope.

Cope, E. D. 1878 F, p. 67.
 1878 HH, p. 57.
 Williston, S. W. 1899 B, p. 115.
 1900, in Stewart A. 1900 A, p. 382.

***Trisnaspis virgulatus* Cope.**
 Cope, E. D. 1878 F, p. 67.
 Cretaceous (Niobrara); S. Dakota.

LEPTOTRACHELUS Marck. Type *L. armatus* Marck.

Marck, W. 1863 A, p. 59.
 Cope, E. D. 1878 F, p. 68.
 1878 HH, p. 57.
 Davis, J. W. 1887 C, p. 619.
 Nicholson and Lydekker 1889 A, p. 997. (Syn. of
 Dercetes.)
 Pictet and Humbert 1886 A, p. 93.

Reis, O. M. 1895 C, p. 169.
 Zittel K. A. 1890 A, p. 268.
***Leptotrachelus longipinnis* Cope.**
 Cope, E. D. 1878 F, p. 68.
 Williston, S. W. 1899 B, p. 115.
 1900, in Stewart, A. 1900 A, p. 382.
 Cretaceous (Niobrara); S. Dakota.

GASTEROSTEIDÆ.

Cope, E. D. 1872 C, p. 338.
 Gill, T. 1898 A, p. 187.
 Günther, A. 1859 L, p. 1.
 1890 A, p. 504.

Jordan and Evermann 1896 A, p. 742.
 Parker, W. K. 1868 A, p. 39.
 Sauvage, H. E. 1874 A. ("Épinoches.")

GASTEROSTEUS Linn. Type *G. aculeatus* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. x, p. 489.
 Günther, A. 1859 A, p. 2.
 1890 A, p. 505.
 Huxley, T. H. 1868 C, p. 39.
 Jordan and Evermann 1896 A, p. 746.
 Owen, R. 1845 B, p. 91.
 Parker, W. K. 1868 A, p. 39.
 Sauvage, H. E. 1874 A, p. 5.

Dawson, J. W. 1877 B, p. 341. (*G. aculeatus*?)
 1890 A, p. 86. (*G. aculeatus*?)
 Jordan and Evermann 1896 A, p. 748.
 Living; Labrador to New Jersey: Pleisto-
 cene; Canada.
 It seems most probable that the stickleback
 found fossil in Canada by Dr. Dawson is the *G.*
bispinosus, common on our Eastern coast.

***Gasterosteus bispinosus* Walbaum.**

Walbaum, 1792, Artedi Pisc., p. 450.

Order MESICHTHYES nom. nov.

Actinopteri with anterior vertebræ unmodi-
 fied and not connected with auditory appara-
 tus. Branchial arches well developed. Pre-
 racoid arch and interclavicles absent. Ven-
 tral fins abdominal.

This order is intended to include the *Haplomi*,
 the *Symetognathi*, and the *Percesoces*.

Suborder HAPLOMI Cope.

Cope, E. D. 1872 C, pp. 323, 333.
Gill, T. 1872 C, p. 14.

Gill, T. 1893 A, p. 133.
Jordan and Evermann 1896 A, p. 622.

LUCIIDÆ.

Unless otherwise indicated, the family name
Esocidæ is used by the following writers.

Bridge, T. W. 1896 A, p. 545.
Brühl B. C. 1847 A. (Esoc.)
Cope, E. D. 1872 C, p. 333.
1875 E, p. 280. (Ischyrrhizidæ.)
Dareste, C. 1872 A, p. 1086.
Gill, T. 1872 C, p. 15.
Grassi, B. 1893 H.
Günther, A. 1866 A, p. 226.
1880 A, p. 623.
1881 A, p. 693.
Jordan and Evermann 1896 A, p. 624. (Luciidae.)
Klein, E. F. 1879, p. 108. (Esoc.)
Kölliker, A. 1859 A. (Esocæ.)
Müller, A. 1853 A.

Müller, J. 1843 A, p. 215. (Esocæ.)
1846 C, p. 188. (Esocæ.)
Nicholson and Lydekker 1889 A, p. 1000.
Owen, R. 1845 B, p. 131. ("Lucioida.")
1866 A, p. 10 *et seq.*
Parker, W. K. 1868 A, p. 54.
Pictet, F. J. 1854 A, p. 108.
Quenstedt, F. A. 1885 A, p. 365. (Esocini.)
Reis, O. M. 1895 C, p. 170.
Röse, C. 1897 A, with figures.
Stannius, H. 1854 A. (Esocæ.)
Stephan, P. 1900 A. (Esoc.)
Vallant, L. 1883 A.
Vrolik, A. J. 1873 A, pp. 236, 261.
Woodward, A. S. 1898 B, p. 120.
Zittel, K. A. 1890 A, p. 270.

ISCHYRRHIZA Leidy. Type *I. mira* Leidy.

Leidy, J. 1856 K, p. 221.
Cope, E. D. 1872 I, p. 355.
1875 E, p. 280.
Leidy, J. 1857 A, p. 272.
Zittel, K. A. 1890 A, p. 270.
This genus is assigned only provisionally to
the *Luciidae*.

Ischyrrhiza antiqua Leidy.

Leidy, J. 1856 L, p. 256.
Cope, E. D. 1875 E, p. 280.
1875 V, p. 32.
1887 G, p. 566.
Emmons, E. 1858 B, p. 225, figs. 47, 48.
Leidy, J. 1857 A, p. 272.

Leidy, J. 1860 B, p. 120. 'Syn. of *I. mira*.)
Cretaceous; North Carolina: (Fox Hills);
New Mexico.

Ischyrrhiza mira Leidy.

Leidy, J. 1856 K, p. 221.
Cope, E. D. 1872 I, p. 355.
1875 E, p. 280.
Leidy, J. 1860 B, p. 120, pl. xxv, figs. 3-9. (*I. antiqua* a synonym.)
Cretaceous; New Jersey: Miocene?; South
Carolina.

Ischyrrhiza ? radiata Clark.

Clark, W. B. 1896 A, p. 4.
1897 A, p. 60, pl. vii, figs.
Eocene; Virginia.

PŒCILIIDÆ.

Cope, E. D. 1872 C, p. 338. (Cyprinodontidæ.)
Gill, T. 1894 B, p. 115. (Pœciliidæ.)
1896 B, p. 221. (Pœciliidæ.)
Günther, A. 1866 A, p. 299. (Cyprinodontidæ.)
1880 A, p. 613. (Cyprinodontidæ.)
1881 A, p. 693. (Cyprinodontidæ.)
Ihering, H. 1891 B, p. 477. (Cyprinodontidæ.)
Jordan and Evermann 1896 A, p. 630.

Kölliker, A. 1859 A. (Cyprinodontes.)
Müller, J. 1846 C, pp. 183, 202. (Cyprinodontes.)
Nicholson and Lydekker 1889 A, p. 1000. (Cyprinodontidæ.)
Reis, O. M. 1895 C, p. 170. ("Cyprinodonten.")
Stannius, H. 1854 A. (Cyprinodontes.)
Zittel, K. A. 1890 A, p. 281. (Cyprinodontidæ.)

GEPHYURA Cope. Type *G. concentrica* Cope.

Cope, E. D. 1891 H, p. 654.
The position of the genus is in doubt.

Gephyura concentrica Cope.

Cope, E. D. 1891 H, p. 654.
1892 B, p. 285.
Oligocene?; South Dakota.

Suborder PERCESOCES Cope.

Cope, E. D., 1871, Trans. Amer. Phil. Soc., xiv, p.
456.
1872 C, pp. 335, 337.
Gill, T. 1872 C, p. 13.

Gill, T. 1893 A, p. 133.
Jordan and Evermann 1896 A, p. 787.
Starks, E. C. 1899 A, p. 1.

MUGILIDÆ.

- Agassiz**, L. 1843 B (1844), v. p. 119. ("Mugiloides.")
Cope, E. D. 1872 C, p. 338.
Darste, C. 1872 A, p. 1175. ("Mugiloides.")
Gill, T. 1872 C, p. 13.
Günther, A. 1861 A, p. 409.
 1880 A, p. 501.
Jordan and **Evermann** 1898 A, p. 806.
Kölliker, A. 1859 A. (Mugiloidel.)

- Nicholson** and **Lydekker** 1889 A, p. 1006.
Owen, R. 1845 B, p. 120. ("Mugiloids.")
 1866 A, p. 11 *et seq.*
Parker, W. K. 1868 A, p. 50.
Stannius, H. 1854 A. (Mugiloidel.)
Starks, E. C. 1899 A, p. 1.
Zittel, K. A. 1890 A, p. 312.

It is not certain that any of the genera here assigned to this family really belong to it.

CLADOCYCLUS Agassiz. Type *C. lewisiensis* Agassiz.

- Agassiz**, L. 1843 B (1844), v. p. 108.
Geinitz, H. B. 1868 A, p. 42.
 1875 A, p. 224.
Leidy, J. 1873 B, p. 288.
Loomis, F. B. 1900 A, p. 237. (Syn. of *Ichthyodectes*.)
Nicholson and **Lydekker** 1889 A, p. 1006.
Pictet, F. J. 1854 A, p. 94.
Woodward and **Sherborn** 1890 A, p. 34.

Cladocyclus occidentalis Leidy.

- Leidy**, J. 1856 M, p. 256.
 1857 C, p. 90.
 1873 B, pp. 288, 347, pl. xvii, figs. 21, 22; pl. xxx, fig. 5.
Loomis, F. B. 1900 A, pp. 237, 242. (Syn. of *Ichthyodectes arcuatus*.)
Whiteaves, J. F. 1889 B, p. 195, pl. xxvi, figs. 8, 9.
 Cretaceous; South Dakota, Manitoba.

PELECORAPIS Cope. Type *P. varius* Cope.

- Cope**, E. D. 1874 C, p. 39.
 1875 E, pp. 182, 273.
 1877 G, p. 587.
Zittel, K. A. 1890 A, p. 312.

Pelecorapis berycinus Cope.

- Cope**, E. D. 1877 G, p. 587.
 Cretaceous (Pierre); Montana.

Pelecorapis varius Cope.

- Cope**, E. D. 1874 C, p. 39.
 1875 E, pp. 182, 273.
 1877 G, p. 587.
 Cretaceous (Benton); Kansas.

SYLLÆMUS Cope. Type *S. latifrons* Cope.

- Cope**, E. D. 1875 E, pp. 180, 273.
 1877 K, p. 26.
Nicholson and **Lydekker** 1889 A, p. 1006. (Syn. of *Calamopleurus*.)
Stewart, A. 1900 A, p. 383.
Woodward, A. S. 1888 I, p. 325.
Zittel, K. A. 1890 A, p. 312. (Scyllæmus.)

Syllæmus latifrons Cope.

- Cope**, E. D. 1875 E, pp. 181, 273.
 1877 K, p. 27.
Stewart, A. 1900 A, p. 384, pl. lxxii.
 Cretaceous; New Mexico?: Cretaceous (Benton); Kansas.

SPHYRÆNIDÆ.

- Agassiz**, L. 1843 B, v. p. 93. ("Sphyrænoides.")
 1845 A, p. 291. (Sphyrænoidæ.)
Bridge, T. W. 1896 A, p. 569.
Cope, E. D. 1870 L, p. 529.
Gill, T. 1872 C, p. 12.
Günther, A. 1860 A, p. 334.
 1880 A, p. 499.

- Günther**, A. 1881 A, p. 690.
Jordan and **Evermann** 1898 A, p. 822.
Klein, E. F. 1879 A, p. 91.
Nicholson and **Lydekker** 1889 A, p. 1006.
Quenstedt, F. A. 1885 A, p. 375. (Sphyrænoidel.)
Starks, E. C. 1899 A, p. 1.
Zittel, K. A. 1890 A, p. 312.

DICTYODUS Owen. Without designated type.

- Owen**, R., 1839, Rep. Brit. Assoc. Adv. Sci. for 1838, p. 142.
Agassiz, L. 1843 B (1844), v. pp. 8, 98. (Sphyrænodus.)
Giebel, C. G. 1848 A, p. 92. (Sphyrænodus.)
Owen, R. 1845 B, pp. 6, 12, pl. liv (Dictyodus); p. 128 (Sphyrænodus).
Pictet, F. J. 1854 A, p. 93. (Sphyrænodus.)
Zittel, K. A. 1890 A, p. 312.

Dictyodus silovianus (Cope).

- Cope**, E. D. 1875 H, p. 362. (Sphyrænodus).
 Miocene; New Jersey.

Dictyodus speciosus (Leidy.)

- Leidy**, J. 1856 K, p. 221. (Sphyræna.)
Cope, E. D. 1867 C, p. 142. (Sphyræna.)
 1875 H, p. 362. (Sphyrænodus).
 Miocene; New Jersey.

SPHYRÆNA Bloch and Schn. Type *Esox sphyraena* Linn.

Bloch and Schneider, 1801, Syst. Ichth., p. 109.
 Agassiz L. 1843 B (1844), v, pp. 8, 93.
 1845 A, p. 291.
 Günther, A. 1860 A, p. 334.
 Jordan and Evermann 1896 A, p. 822.
 Owen, R. 1845 B, pp. 4, 6, 126, pl. IIII.
 Pictet, F. J. 1864 A, p. 92.

Starks, E. C. 1899 A, p. 8.
 Zittel, K. A. 1890 A, p. 312.

Sphyraena major Leidy.

Leidy, J. 1856 C, p. 397.
 1877 A, p. 254, pl. xxxiv, figs. 37-41.
 Sands of Ashley River; South Carolina.

Order PERCOMORPHI.

Cope, E. D. 1872 C, p. 341.
 1884 O, p. 79.

Cope, E. D. 1889 R, p. 860.

Suborder SQUAMIPINNES.

Günther, A. 1860 A, p. 1.
 Jordan and Evermann 1896 A, p. 781,
 1898 A, p. 1665.

Kölliker, A. 1859 A. (Squamipennes.)
 Zittel, K. A. 1890 A, p. 299. (Squamipennes.)

CHÆTODONTIDÆ.

Gill, T. 1872 C, p. 8. (Chætodontidæ, Ephippiidæ.)
 Cope, E. D. 1872 C, p. 342.
 Günther, A. 1860 A, p. 1. (Squamipinnes, in part.)
 1880 A, p. 397. (Squamipinnes, in part.)
 Jordan and Evermann 1898 A, p. 1666 (Ephippiidæ); p. 1669 (Chætodontidæ).

Kölliker, A. 1859 A. (Squamipennes.)
 Nicholson and Lydekker 1889 A, p. 1013.
 Parker, W. K. 1868 A, p. 50.
 Zittel, K. A. 1890 A, p. 299. (Squamipennes.)

CHÆTODIPTERUS Lacépède. Type *C. faber* (Brouss.).

Lacépède, 1802, Hist. Nat. Poiss., iv, p. 503.
 Günther, A. 1860 A, p. 60. (Ephippus.)
 1880 A, p. 402, fig. 171. (Ephippus.)
 Jordan and Evermann 1898 A, p. 1667.
 Nicholson and Lydekker 1889 A, p. 1013. (Ephippus.)
 Owen, R. 1866 A, pp. 108, 111. (Ephippus.)
 Zittel, K. A. 1890 A, p. 299. (Ephippus.)

Chætodipterus faber (Brouss.).

Broussonet, 1782, Ichth. Decas, 1, v, pl. 4, *Ade Jordan* and Evermann. (Chætodon.)
 Jordan and Evermann 1898 A, p. 1668.
 Leidy, J. 1889 E, p. 31. (Ephippus gigas.)
 Recent; Cape Cod to Rio Janeiro: Pleistocene; Florida.

Suborder PHARYNGOGNATHI.

Cope, E. D. 1872 C, p. 343.
 Gill, T. 1872 C, p. 6.
 1893 A, p. 135. (Pomacentroidea, Labroidæ.)
 Ihering, H. 1891 B, p. 508.
 Jordan and Evermann 1898 A, p. 1571.
 Kner, R. 1860 A, p. 41.

Kölliker, A. 1859 A.
 Müller, J. 1846 C, pp. 131, 155, 199.
 Parker, W. K. 1868 A, p. 49.
 Reis, O. M. 1896 C, p. 163.
 Stannius, H. 1854 A.
 Zittel, K. A. 1890 B, p. 287.

LABRIDÆ.

Agassiz L. 1845 A, p. 291. (Labroidæ.)
 Brühl, B. C. 1847 A.
 Cocchi, I. 1864 A. (Pharyngodopliidæ.)
 Cope, E. D. 1872 C, p. 343.
 Dareste, C. 1872 A, p. 1174. ("Labroides.")
 Gill, T. 1872 C, p. 7.
 1893 A, p. 135.
 Günther, A. 1862 A, p. 65.
 1880 A, p. 525.
 Jordan, D. S. 1891 A.
 Jordan and Evermann 1898 A, p. 1571.
 Kner, R. 1860 A, p. 41. ("Labroiden.")
 Kölliker, A. 1859 A. (Labroidel.)

Müller, J. 1846 C, p. 168. (Labroidel.)
 Nicholson and Lydekker 1889 A, p. 1004. (Labridæ, Pharyngodopliidæ.)
 Owen, R. 1845 B, p. 108. ("Labroida.")
 1866 A, p. 11 *et seq.* (Cyclo-labridæ.)
 Parker, W. K. 1868 A, p. 50.
 Reis, O. M. 1896 C.
 Sauvage, H. E. 1875 B, p. 615. (Pharyngodopliidæ, Phyllodidæ.)
 Zittel, K. A. 1890 A, p. 288.

In this family are included provisionally the genera *Nummoplatys* and *Phyllodus*.

PROTAUTOGA Leidy. Type *P. conidens* Leidy.

Leidy, J. 1873 C, p. 15. (Assubgenus of Tautoga.)
1873 B, p. 347.
Nicholson and Lydekker 1889 A, p. 1004.
Zittel, K. A. 1890 A, p. 289.

Protautoga conidens Leidy.

Leidy, J. 1873 C, p. 15. [Tautoga (Protautoga.)]
1873 A, p. 312. [Tautoga (Protautoga.)]
1873 B, p. 346, pl. xxxii, figs. 56, 57. [Tautoga (Protautoga.)]
Miocene; Virginia.

NUMMOPALATUS Roualt. Type *N. edwardsius* Roualt.

Roualt, M. 1858 A, p. 101.
Cocchi, I. 1864 A, p. 59. (Pharyngodoptilus.)
Cornuel, J. 1877 A, p. 620.
Günther, A. 1880 A, p. 526.
Leidy, J. 1855 C, p. 396. (Odax.)
Reis, O. M. 1895 C, p. 174.
Sauvage, H. E. 1875 B, p. 618.

Zittel, K. A. 1890 A, p. 289.

Nummopalatus carolinensis (Leidy.)

Leidy, J. 1855 C, p. 396. (Odax.)
1877 A, p. 256, pl. xxxiv, figs. 19, 24. (Pharyngodoptilus.)
Phosphate beds; South Carolina.

PHYLLODUS Agassiz. Type not designated.

Agassiz, L. 1843 B, II, pt. II, p. 238.
1844 A.
Cocchi, I. 1864 A, p. 59.
Cornuel, J. 1877 A, p. 619.
Glebel, C. G. 1848 A, p. 174.
Günther, A. 1880 A, p. 526.
Nicholson and Lydekker 1889 A, p. 1004, fig. 941.
Owen, R. 1845 B, p. 138, pl. xlv, fig. 2; pl. xlvii, figs. 1, 2.
Pictet, F. J. 1854 A, p. 206.
Quenstedt, F. A. 1885 A, p. 381.
Sauvage, H. E. 1875 B, p. 615.
Wyman, J. 1850 B, p. 234.
1850 C.
Zittel, K. A. 1890 A, p. 289.

Phyllodus curvidens Marsh.

Marsh, O. C. 1870 E, p. 229.
Cope, E. D. 1875 H, p. 362.
Miocene; New Jersey.

Phyllodus elegans Marsh.

Marsh, O. C. 1870 E, p. 228.
Eocene; New Jersey.

Phyllodus hipparionyx Eastman.

Eastman, C. R. 1900, Geol. Surv. Maryland, IV, p. 103.
Wyman, J. 1850 B, p. 234, figs. 9a, 9b. ("Phyllodus.")
Eocene; South Carolina.

POMACENTRIDÆ.

Gill, T. 1872 C, p. 7.
Günther, A. 1862 A, p. 1.
1880 A, p. 524.
Jordan and Evermann 1898 A, p. 1542.

Kner, R. 1860 A, p. 42. ("Pomacentrinen.")
Nicholson and Lydekker 1889 A, p. 1004.
Owen, R. 1866 A, p. 11. (Ctenolabridæ.)
Zittel, K. A. 1890 A, p. 287.

PRISCACARA Cope. Type *P. serrata* Cope.

Cope, E. D. 1877 I, p. 816.
1884 O, p. 92.
Nicholson and Lydekker 1888 A, p. 1004.
Zittel, K. A. 1890 A, p. 288.

Priscacara cligosa Cope.

Cope, E. D. 1878 F, p. 76.
1877 AA.
1884 O, p. 96, pl. xiii, fig. 3.
Eocene (Green River); Wyoming.

Priscacara cypha Cope.

Cope, E. D. 1877 I, p. 817.
1878 Z, p. 570.
1884 O, p. 94, pl. xiii, fig. 2.
Eocene (Green River); Wyoming.

Priscacara hypsacantha Cope.

Cope, E. D. 1886 T, p. 164, pl. I, fig. vi.
Eocene (Green River); Wyoming.

Priscacara liops Cope.

Cope, E. D. 1877 I, p. 818.
1877 AA.
1878 Z, p. 570.
1884 O, p. 97, pl. xiv, figs. 2, 3.
Eocene (Green River); Wyoming.

Priscacara oxyprion Cope.

Cope, E. D. 1878 F, p. 74.
1884 O, p. 94, pl. xiv, fig. b.
Eocene (Green River); Wyoming.

Priscacara pealei Cope.

Cope, E. D. 1878 F, p. 75.
1884 O, p. 96, pl. viii, fig. 4; pl. xiv, fig. 4.
Eocene (Green River); Wyoming.

Priscacara serrata Cope.

Cope, E. D. 1877 I, p. 816.

Cope, E. D. 1877 AA.

1878 Z, p. 570.

1884 O, p. 93, pl. xiii, fig. 1.

1886 T, p. 165.

Eocene (Green River); Wyoming.

Priscacara testudinaria Cope.

Cope, E. D. 1884 O, p. 93, pl. i, fig. 7.

1890 T, p. 303. (No description.)

Eocene (Manti); Utah.

Superfamily BERYCOIDEA Gill.

Gill, T. 1872 C, p. 10.

Gill, T. 1893 A, p. 133.

BERYCIDÆ.

Bridge, T. W. 1896 A, p. 560.

Cope, E. D. 1872 C, p. 342.

Gill, T. 1872 C, p. 10.

Günther, A. 1859 A, pp. 8, 12.

1880 A, p. 420.

Jordan and Evermann 1896 A, p. 337.

Klein, E. F. 1879 A, p. 80.

Nicholson and Lydekker 1889 A, p. 1010.

Reis, O. M. 1895 C, p. 175.

Zittel, K. A. 1890 A, p. 291.

BERYX Cuvier. Type *B. decadactylus* C. and V.

Cuvier, G., 1829, Règne Anim., ed. ii, p. 151.

Agassiz, L. 1844 A.

Bridge, T. W. 1896 A, p. 563.

Dixon, F. 1878 A, p. 398.

Eichwald, E. 1868 A, p. 1196.

Günther, A. 1859 A, p. 12.

1880 A, p. 422.

Huxley, T. H. 1876 B, xlii, p. 388.

Pictet, F. J. 1854 A, p. 49.

Pictet and Humbert 1866 A, pp. 13, 27.

Williamson, W. C. 1849 A, p. 444.

Zittel, K. A. 1896 A, p. 291.

Beryx insculptus Cope.

Cope, E. D. 1869 F, p. 240.

1872 I, p. 357.

1875 E, p. 272, pl. iii, fig. 4.

Cretaceous; New Jersey.

Superfamily SCOMBROIDEA Gill.

Gill, T. 1872 C, p. 8.

1893 A, p. 133.

Kölliker, A. 1859 A. (Scomberoidel.)

Parker, W. K. 1868 A, p. 50. ("Scombroidea.")

Stannius, H. 1854 A. (Scomberoidel, as family.)

XIPHIIDÆ.

Agassiz, L. 1845 A, p. 289. (Xiphioidæ.)

Cope, E. D. 1872 C, p. 342. (Xiphiadidæ.)

Gill, T. 1872 C, p. 8.

1883 A, p. 485. (Xiphiidæ, Histiophoridae.)

Günther, A. 1860 A, p. 511.

Günther, A. 1880 A, p. 431.

Jordan and Evermann 1896 A, p. 893.

Nicholson and Lydekker 1889 A, p. 1010.

Reis, O. M. 1895 C.

Zittel, K. A. 1890 A, p. 300.

ISTIOPHORINÆ.

Gill, T. 1883 A, p. 486. (Histiophoridae.)

1893 A, p. 133. (Histiophoridae.)

Goode, G. B. 1882 A, p. 417. (Tetrapturinae.)

Jordan and Evermann 1896 A, p. 890. (Istiophoridae.)

ISTIOPHORUS Lacépède. Type *I. gladiifer* = *I. gladius*.

Lacépède, 1802, Hist. Nat. Poissons, iii, p. 374.

Goode, G. B. 1882 A, p. 423. (Histiophorus.)

Günther, A. 1860 A, p. 512. (Histiophorus.)

1880 A, p. 431. (Histiophorus.)

Jordan and Evermann 1896 A, p. 890.

Nicholson and Lydekker 1889 A, p. 1010. (Histiophorus.)

Owen, R. 1845 B, p. 121. (Histiophorus.)

Quenstedt, F. A. 1885 A, p. 371. (Histiophorus.)

Istiophorus antiquus (Leidy).

Leidy, J. 1855 C, p. 397. (Xiphias.)

Cope, E. D. 1869 L, p. 310. (Histiophorus.)

Eocene; New Jersey.

Istiophorus homalorhamphus Cope.

Cope, E. D. 1869 L, p. 310. (Histiophorus.)

Tertiary greensand; New Jersey.

Istiophorus parvulus Marsh.

Marsh, O. C. 1870 E, p. 227. (Histiophorus.)

Eocene; New Jersey.

Istiophorus robustus (Leidy).

Leidy, J. 1860 B, p. 119, pl. xxvii, figs. 3-5. (Xiphias.)

Cope, E. D. 1869 L, p. 310. (Histiophorus.)

Post-pliocene; South Carolina.

EMBALORHYNCHUS Marsh. Type *E. kinnei* Marsh.*Marsh, O. C. 1870 E, p. 228.***Embalorhynchus kinnei Marsh.***Marsh, O. C. 1870 E, p. 228.*
Eocene; New Jersey.**TRICHIURIDÆ.**

Cope, E. D. 1872 C, p. 342.

Dames, W. 1887 B, p. 71.

Günther, A. 1860 A, p. 342.

Günther, A. 1880 A, p. 433.

Jordan and Evermann 1896 A, p. 888.

Zittel, K. A. 1890 A., p. 302.

TRICHIURUS Linn. Type *T. lepturus* Linn.*Linnaeus, C., 1758, Syst. Nat., ed. x, p. 246.*

Günther, A. 1860 A, p. 346.

Jordan and Evermann 1896 A, p. 888.

Owen, R. 1845 B, pp. 2, 125, pl. i, fig. 8.

Trichiurus lepturus Linn.*Linnaeus C., 1758, Syst. Nat., ed. x, p. 246.*

Jordan and Evermann 1896 A, p. 889.

Ledy, J. 1860 B, p. 121, pl. xxv, fig. 2. (*T. lepturus fossilis.*)

Recent; West Indies to Virginia: Post-pliocene; South Carolina.

CARANGIDÆ.

Gill, T. 1872 C, p. 8.

Cope, E. D. 1872 C, p. 342.

Gill, T. 1893 A, p. 133.

Günther, A. 1860 A, p. 417.

1890 A, p. 440.

Jordan and Evermann 1896 A, p. 896.

Nicholson and Lydekker 1889 A, p. 1008.

Pictet and Humbert 1866 A, p. 45. ("Carangides.")

Reis, O. M. 1896 C, p. 177.

Zittel, K. A. 1890 A, p. 304.

PLATAX Cuvier. Type not specified.*Cuvier and Valenciennes, 1831, Hist. Nat. Poiss., vii, p. 213.*

Agassiz, L. 1844 A, p. 207.

Davis, J. W. 1887 C, p. 523.

Glebel, C. G. 1848 A, p. 56.

1860 A, p. 489.

Günther, A. 1860 A, p. 448.

Nicholson and Lydekker 1889 A, p. 1009.

Owen, R. 1845 B, p. 2, pl. i, fig. 2.

Pictet, F. J. 1864 A, p. 67.

Pictet and Humbert 1866 A, p. 46.

Quenstedt, F. A. 1885 A, p. 396.

Zittel, K. A. 1890 A, p. 304.

Platax sp. indet.

Gibbes, R. W. 1850 A, p. 77.

1850 G, p. 300, pl. xlii, figs. 11-13.

Pliocene; South Carolina.

Superfamily PERCOIDEA Gill.

Gill, T. 1893 A, p. 134.

APHREDODERIDÆ.Cope, E. D. 1870 H, p. 380. (*Asineopidæ.*)1877 AA. (*Asineopidæ.*)1884 O, p. 79 (*Aphrododeridæ*); p. 85 (*Asineopidæ*).

Günther, A. 1859 A, p. 271.

Günther, A. 1880 A, p. 396.

Jordan and Evermann 1896 A, p. 785.

Nicholson and Lydekker 1889 A, p. 1014. (*Aphrododeridæ, Asineopidæ.*)Zittel, K. A. 1890 A, p. 226. (*Percidæ, in part.*)**AMPHIPLAGA Cope. Type *A. brachyptera* Cope.**

Cope, E. D. 1877 I, p. 812.

1884 O, p. 83.

Amphiplaga brachyptera Cope.

Cope, E. D. 1877 I, p. 812.

Cope, E. D. 1877 Z, p. 570.

1877 AA.

1884 O, p. 84.

Eocene (Green River); Wyoming.

ASINEOPS Cope. Type *A. squamifrons* Cope.

Cope, E. D. 1870 H, p. 380.

1871 E, p. 425.

1884 O, p. 84.

Ledy, J. 1871 C, p. 369.

Nicholson and Lydekker 1889 A, p. 1014.

Zittel, K. A. 1890 A, p. 299.

Asineops pauciradiatus Cope.

Cope, E. D. 1877 I, p. 818.

1877 AA.

1878 Z, p. 570.

Cope, E. D. 1884 O, p. 87, pl. xiv, fig. 1.

Eocene (Green River); Wyoming.

Asineops squamifrons Cope.

Cope, E. D. 1870 H, p. 381.

1871 E, p. 425. (*A. squamifrons*, *A. viridensis*.)

1884 O, p. 85, pl. ix, fig. 5; pl. xi.

King, C. 1878 A, p. 394. (*A. squamifrons*, *A. viridensis*.)

Ledy, J. 1871 C, p. 369.

Eocene (Green River); Wyoming.

TRICHOPHANES Cope. Type *T. hians* Cope.

Cope, E. D. 1872 P, p. 479.

1873 E, p. 641.

1879 N.

1884 O, pp. 79, 742, 752.

Osborn, Scott, and Speir 1878 A, p. 97.

Trichophanes copei. Osb., Sc. and Sp.

Osborn, Scott, and Speir, 1878 A, p. 96.

Cope, E. D. 1884 O, p. 752.

Oligocene; Colorado.

Trichophanes foliarum Cope.

Cope, E. D. 1878 F, p. 73.

1884 O, p. 758, pl. lix, fig. 4.

Oligocene; Colorado.

Trichophanes hians Cope.

Cope, E. D. 1872 P, p. 481.

1872 MM, p. 775.

1873 E, p. 642.

1884 O, p. 758, pl. lix, fig. 3.

Oligocene; Nevada.

ERISMATOPTERUS Cope. Type *E. rickseckeri* Cope.

Cope, E. D. 1871 E, p. 427.

1884 O, p. 80.

Zittel, K. A. 1890 A, p. 296.

Erismatopterus endlichii Cope.

Cope, E. D. 1877 I, p. 811.

1877 Z, p. 570.

1877 AA.

1884 O, p. 82, pl. xii, fig. 5.

Eocene (Green River); Wyoming.

Erismatopterus levatus Cope.

Cope, E. D. 1870 H, p. 382. (Cyprinodon.)

1871 E, p. 428.

1884 O, p. 80, pl. ix, figs. 6, 7.

Ledy, J. 1871 C, p. 369. (Cyprinodon.)

Eocene (Green River); Wyoming.

Erismatopterus rickseckeri Cope.

Cope, E. D. 1871 E, p. 427.

1884 O, p. 81, pl. vi, fig. 2.

Ledy, J. 1872 B, p. 372.

Eocene (Green River); Wyoming.

PERCIDÆ.

Agassiz, L. 1845 A, p. 286. (Percoidæ.)

Bridge, T. W. 1896 A, p. 564.

Brühl, B. C. 1847 A. ("Percoiden.")

Cope, E. D. 1872 C, p. 342.

1883 A.

Gill, T. 1872 C, p. 11.

Günther, A. 1859 A, p. 51.

1880 A, p. 375.

1881 A, p. 688.

Jordan and Evermann 1896 A, p. 1015.

Kölliker, A. 1859 A. (Percoidel, part.)

Nicholson and Lydekker 1889 A, p. 1012.

Owen, R. 1845 B, p. 88. ("Percoids.")

1866 A, p. 11 *et seq.*

Parker, W. K. 1868 A, p. 52.

Reis, O. M. 1895 C.

Segond, L. A. 1873 B, p. 528. ("Percoides.")

Zittel, K. A. 1890 A, p. 298.

MIOPILOSUS Cope. Type *M. abbreviatus* Cope.

Cope, E. D. 1877 I, p. 813.

1884 O, p. 88.

Nicholson and Lydekker 1889 A, p. 1013.

Zittel, K. A. 1890 A, p. 294.

Mioplosus abbreviatus Cope.

Cope, E. D. 1877 I, p. 813.

1877 Z, p. 570.

1877 AA.

Cope, E. D. 1884 O, p. 88.

Eocene (Green River); Wyoming.

Mioplosus beani Cope.

Cope, L. D. 1877 I, p. 816.

1877 Z, p. 570.

1877 AA.

1884 O, p. 91, pl. xii, fig. 3.

Eocene (Green River); Wyoming.

Mioplosus labracoides Cope.

Cope, *E. D.* 1877 I, p. 814.
1877 Z, p. 570.
1877 A.A.
1884 O, p. 89, pl. xii, fig. 1.
Eocene (Green River); Wyoming

Mioplosus longus Cope.

Cope, *E. D.* 1877 I, p. 815.
1877 Z, p. 570.
1877 A.A.

Cope, *E. D.* 1884 O, p. 90, pl. xii, fig. 2.
Eocene (Green River); Wyoming.

Mioplosus multidentatus Cope.

Cope, *E. D.* 1891 H, p. 657.
1892 B, p. 285.
Tertiary (Oligocene?); South Dakota.

Mioplosus sauvageanus Cope.

Cope, *E. D.* 1884 O, p. 92.
Eocene (Green River); Wyoming.

PLIOPLARCHUS Cope. Type *P. whitei* Cope.

Cope, *E. D.* 1883 A, p. 414.
1884 O, p. 727.
Nicholson and Lydekker 1889 A, p. 1014.
Zittel, K. A. 1890 A, p. 295.

Plioplarhus septemspinus Cope.

Cope, *E. D.* 1889 M, p. 625.
Tertiary, below John Day beds; Oregon

Plioplarhus sexspinus Cope.

Cope, *E. D.* 1883 A, p. 416.

Cope, *E. D.* 1884 O, p. 729.
Upper Cretaceous or Lower Tertiary; South Dakota.

Plioplarhus whitei Cope.

Cope, *E. D.* 1883 A, p. 414.
1884 O, p. 728, pl. xxiv G, fig. 1.
Upper Cretaceous or Lower Tertiary; South Dakota.

OLIGOPLARCHUS Cope. Type *O. squamipinnis* Cope.

Cope, *E. D.* 1891 H, p. 656.
Oligoplarchus squamipinnis Cope.
Cope, *E. D.* 1891 H, p. 656.

Cope, *E. D.* 1892 B, p. 285.
Oligocene?; South Dakota.

SPARIDÆ.

Agassiz, L. 1845 A, p. 287. (Sparoidæ.)
Brühl, B. C. 1847 A. ("Sparoiden.")
Cope, *E. D.* 1872 C, p. 342.
Jordan and Evermann 1896 A, p. 1343.

Kölliker, A. 1859 A. (Sparoidel.)
Owen, R. 1845 B, p. 91. ("Sparoida.")
Segond, L. A. 1873 B, p. 584. ("Sparoides.")
Stannius, H. 1854 A. (Sparoidel.)

CROMMYODUS Cope. Type *Phacodus irregularis* Cope.

Cope, *E. D.* 1869 F, p. 243. (Substitute for Phacodus Cope, not of Dixon.)
Crommyodus irregularis Cope.
Cope, *E. D.* 1869 L, p. 311. (Phacodus.)

Cope, *E. D.* 1869 F, p. 243.
1875 H, p. 362.
Miocene; New Jersey.

Superfamily **SCIÆNOIDEA** Gill.

Gill, T. 1872 C, p. 10.

SCIÆNIDÆ.

Brühl, B. C. 1847 A. ("Sciænoiden.")
Günther, A. 1860 A, p. 265.
1880 A, p. 426.
Jordan and Evermann 1896 A, p. 1392.
Kölliker, A. 1859 A. (Sciænoidel.)

Owen, R. 1845 B, p. 100. ("Sciænoids.")
1866 A, p. 11 *et seq.*
Parker, W. K. 1868 A, p. 50.
Segond, L. A. 1873 B, pp. 531, 534. ("Sciænoides.")
Stannius, H. 1854 A. (Sciænoidel.)

POGONIAS Lacépède. Type *P. fasciatus* = *Labrus cromis* Linn.

Lacépède, 1802, Hist. Nat. Poissons, III, p. 138.
Günther, A. 1860 A, p. 269.
1880 A, p. 426.
Jordan and Evermann 1896 A, p. 1482.

Pogonias cromis (Linn.).

Linnaeus, C., 1758, Syst. Nat., ed. x, p. 479. (Labrus.)
Günther, A. 1860 A, p. 27, fig. 187.

Jordan and Evermann 1898 A, p. 1482.
 Leidy, J. H. 1855 C, p. 397. (P. chromia.)
 Recent; Long Island Sound to N. Mexico
 Sands of Ashley River; South Carolina.

Pogonias multidentatus Cope.

Cope, E. D. 1869 L, p. 310.
 Miocene; Virginia.

Pogonias sp. indet.

Wyman, J. 1850 C, p. 234.
 Eocene?; South Carolina.

Suborder PAREIOPLITEÆ Richardson.

Richardson, J., 1836, Fauna bor.-amer., III, p. 36.
 Gill, T. 1889 A, p. 589. (Acanthopterygii buccalis
 loricata.)

Günther, A. 1860 A, pp. 90, 211. (Cataphracti.)
 Jordan & Evermann, 1898 A, p. 1756. (Loricati of
 Jenyns, 1835, not Loricata of Merrem, 1820.)

Superfamily SCORPÆNOIDEA Gill.

Gill, T. 1889 A, p. 589.

Gill, T. 1893 A, p. 135.

SCORPÆNIDÆ.

Gill, T. 1860 A, p. 95. (Scorpenina.)
 1872 C, p. 6.
 Günther, A. 1860 A, p. 412.
 Sauvage, H. E. 1873 A, p. 726. (Scorpeni.)

Sauvage, H. E. 1873 B, p. 111.
 Second, L. 1873 B, p. 582. ("Scorpenea.")
 Zittel, K. A. 1890 A, p. 300.

SEBASTODES Gill. Type *S. paucispinis* (Ayres).

Gill, T., 1861, Proc. Acad. Nat. Sci. Phila., p. 165.
 Cramer, F. 1895 A, p. 573.
 Gill, T., 1864, Proc. Acad. Nat. Sci. Phila., p. 145.
 Jordan and Evermann 1898 A, p. 1765.
 Sauvage, H. E. 1873 B, p. 112.

Sebastodes? *rossi* Eigenmann.
 Eigenmann, C. H. 1890 A, p. 17, fig. 1.
 Tertiary; California.

Superfamily COTTOIDEA Gill.

Gill, T. 1872, C. p. 6.
 1889 A, p. 589.

Gill, T. 1893 A, p. 135.

COTTIDÆ.

Bridge, T. W. 1896 A, p. 571.
 Cope, E. D. 1872 C, p. 337.
 Dareste, C. 1872 A, p. 1255. ("Poissons à joues
 cuirassées.")
 Gill, T. 1872 C, p. 6.
 1889 A.
 1891 A, p. 362.
 Günther, A. 1860 A, p. 162. (Cottina.)
 1880 A, p. 476.

Jordan and Evermann 1898 A, p. 1879.
 Nicholson and Lydekker 1899 A, p. 1006.
 Owen, R. 1845 B, p. 90. ("Cottoida," in part.)
 Parker, W. K. 1868 A, p. 43.
 Sauvage, H. E. 1873 B, p. 111. (Scorpenidæ, in
 part; Cottini.)
 Second, L. A. 1873 B, p. 533. ("Cottes.")
 Zittel, K. A. 1890 A, p. 310.

Corrus Linn. Type *C. gobio* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. x, p. 264.
 Günther, A. 1860 A, p. 154.
 1840 A, p. 476.
 Jordan and Evermann 1898 A, p. 1941.
 Sauvage, H. E. 1873 B, p. 135.

Cottus cryptotremus Cope.

Cope, E. D. 1883 L, pp. 162, 163.
 Pleistocene (Equus); Idaho.

Cottus divaricatus Cope.

Cope E. D. 1883 L, p. 162.
 Pleistocene (Equus); Oregon.

Cottus hypoceras Cope.

Cope, E. D. 1883 L, pp. 162, 164.
 Pleistocene (Equus); Oregon

Cottus pontifex Cope.

Cope, E. D. 1883 L, pp. 162, 163.
 Pleistocene (Equus); Oregon.

ARTEDIELLUS Jordan. Type *Cottus uncinatus* Reinh.

Jordan, D. S. 1885, Cat. Fishes N. A., p. 110.
 Jordan and Evermann 1898 A, p. 1905.

Artediellus atlanticus Jord. and Ev.

Jordan and Evermann 1898 A, p. 1905.
 Dawson, J. W. 1877 B, p. 341. (*Cottus* sp.)

Dawson, J. W. 1890 A, p. 86. (*Cottus uncinatus*.)

This species is regarded by Jordan and Evermann as being closely related to the European *A. uncinatus*, but probably distinct.

Recent; Labrador to Cape Cod: Pleistocene; Canada.

Superfamily CYCLOPTEROIDEA Gill.

Gill, T. 1899 A, p. 569.

Garman, S. 1892 A. (Discoboli.)
 1891 A, p. 361.
 1898 A, p. 135.

Günther, A. 1861 A, p. 154. (Discoboli.)

1890 A, p. 483. (Discoboli.)

Hertwig, O. 1881 A. (Discoboli.)

Stannius, H. 1854 A. (Discoboli.)

CYCLOPTERIDÆ.

Jordan and Evermann 1898 A, p. 2094.
 Garman, S. 1892 A, p. 19.

Gill, T. 1872 C, p. 5.
 1891 A, p. 366.

CYCLOPTERUS Linn. Type *C. lumpus* Linn.

Linnæus, C., 1758, Syst. Nat., ed. xi, i, p. 260.
 Garman, S. 1892 A, p. 20.
 Gill, T. 1891 A, p. 368.
 Günther, A. 1861 A, p. 154.
 1890 A, p. 484.
 Jordan and Evermann 1898 A, p. 2096.

Cyclopterus lumpus Linn.

Linnæus, C., 1758, Syst. Nat., ed. xi, i, p. 260.
 Dawson, J. W. 1877 B, p. 341.
 1890 A, p. 86.

Garman, S. 1892 A, p. 21, pl. viii, figs. 1-3, 15-17; pl. ix, fig. 2; pl. x, fig. B; pl. xi, fig. 10; pls. xii, xiii.

Gill, T. 1891 A, p. 368, pls. xxvii, xxx.

Günther, A. 1861 A, p. 155.

1890 A, p. 484, figs. 218, 219.

Jordan and Evermann 1898 A, p. 2096.

Logan, W. E. 1863 A, p. 917.

Recent; eastern and western shores of northern Atlantic: Pleistocene; Ontario, Canada.

Order PLECTOGNATHI.

Cope, E. D. 1872 C, p. 340.
 Dareste, C. 1849 A. ("Plectognathes.")
 1872 A, p. 1019. ("Plectognathes.")
 Gill, T. 1872 C, pp. xi, i.
 1884 D, p. 411.
 1893 A, p. 137.
 Günther, A. 1870 A, p. 207.
 1890 A, p. 683.
 Haeckel, E. 1896 A, p. 236.
 Hertwig, O. 1881 A.
 Hollard, H. 1860 A.

Klein, E. F. 1881 A.
 1886 A.

Müller, J. 1846 C, p. 202.

Nicholson and Lydekker 1889 A, p. 1014.

Owen, R. 1866 A, p. 11 et seq.

Parker, W. K. 1868 A, p. 33.

Reis, O. M. 1895 C, p. 163.

Stannius, H. 1854 A.

Stephan, P. 1900 A. ("Plectognathes.")

Zittel, K. A. 1890 A, p. 256.

Suborder SCLERODERMI.

Agassiz, L. 1843 B, ii, pp. 243, 265. ("Sclérodernes.")
 Gill, T. 1872 C, p. 1.
 1884 D, p. 414.
 1893 A, p. 137.
 Günther, A. 1870 A, p. 207.
 1890 A, p. 684.

Hollard, H. 1860 A, p. 31. ("Sclérodernes.")
 Jordan and Evermann 1898 A, p. 781.

1898 A, p. 1697.

Müller, J. 1846 C, p. 122.

Owen, R. 1846 B, p. 82. ("Scleroderma.")

1866 A, p. 11.

Zittel, K. A. 1890 A, p. 258.

BALISTIDÆ.

Brühl, B. C. 1847 A. (Balistes.)
 Cope, E. D. 1872 C, p. 20.
 Dareste, C. 1872 A, p. 1174. ("Balistes.")
 Gill, T. 1872 C, p. 1.
 1884 D, p. 416.
 1893 A, p. 137.
 Hollard, H. 1868 A, p. 71. ("Balistides.")

Hollard, H. 1854 A, p. 39. ("Balistides.")

1860 A, p. 23. ("Balistides.")

Kölliker, A. 1859 A. (Balistini.)

Owen, R. 1846 B, p. 82. (Genus Balistes.)

Parker, W. K. 1868 A, pp. 33, 51.

Stannius, H. 1854 A. (Balistini.)

Stephan, P. 1900 A. (Balistides.)

GRYPODON Hay. Type *Ancistrodon texanus* Dames.

Hay, O. P. 1899 E, p. 790.

The following authors employ the name *Ancistrodon*. It is practically preoccupied.

Dames, W. 1883 A, p. 664.

Nicholson and Lydekker 1889 A, p. 1016.

Roemer, F. 1849 A, p. 419.

1852 A, p. 30.

Schlüter, C. 1881 A, p. 61.

Woodward and Sherborn 1890 A, p. 10.

Zittel, K. A. 1890 A, p. 259.

Grypodon texanus (Dames).Dames, W. 1883 A, p. 664. (*Ancistrodon*.)Hay, O. P. 1899 E, p. 790. (*Grypodon*.)

Roemer, F. 1849 A, p. 419. (No specific name.)

1852 A, p. 30, pl. 1, fig. 10. (No specific name.)

Woodward, A. S. 1888 I, p. 330. (*Ancistrodon*.)

Cretaceous; Texas.

Suborder GYMNOTONTES.

Agassiz, L. 1843 B, il, p. 268. ("Gymnotontes.")

Dareste, C. 1849 A.

Gill, T. 1872 C, p. 1.

1884 D, p. 418.

1893 A, p. 138.

Günther, A. 1870 A, pp. 207, 269.

Hollard, H. 1857 A.

1860 A.

Kölliker, A. 1859 A.

Müller, J. 1846 C, p. 208.

Stannius, H. 1854 A.

Superfamily DIODONTOIDEA Gill.

Gill, T. 1884 D, p. 423.

| Gill, T. 1893 A, p. 138.

DIODONTIDÆ.

Cope, E. D. 1872 C, p. 340.

Gill, T. 1884 D, p. 423.

Günther, A. 1870 A, p. 269. (*Tetrodontina*.)1880 A, p. 686. (*Gymnotontes*.)

Hollard, H. 1857 A. ("Diodontina.")

Jordan and Evermann 1898 A, p. 1742.

Nicholson and Lydekker 1889 A, p. 1015.

Owen, R. 1845 B, p. 77.

Diodon Linn. Type *D. hystrix* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. x, p. 835.

Agassiz, L. 1843 B, il, p. 273.

Bridge, T. W. 1896 A, p. 582.

Dareste, C. 1849 A.

Günther, A. 1870 A, p. 306.

1880 A, p. 689.

Jordan and Evermann 1898 A, p. 1744.

Owen, R. 1845 B, pp. 14, 77, pl. xxxviii, figs. 1, 2;

pl. xxxix, fig. 2.

1866 A, p. 39.

Parker, W. K. 1868 A, p. 52.

Pictet, F. J. 1854 A, p. 123.

Zittel, K. A. 1890 A, p. 257.

Diodon vetus Leidy.

Leidy, J. 1855 C, p. 397.

Cope, E. D. 1871 M, p. 210. (*D. antiquus*.)1875 V, p. 31, pl. viii, fig. 6. (*D. antiquus*.)

Leidy, J. 1877 A, p. 255, pl. xxxiv, figs. 15, 16.

Phosphate beds; South Carolina: Miocene; North Carolina.

Dr. E. Koken, in Zeitschrift deutschen geolog. Gesellsch., vol. xi, pp. 274-306, pls. xvii-xix, has described, from the Tertiary deposits of Alabama and Mississippi, the following list of otoliths of fishes, designating the families, in some cases the genera, to which these otoliths probably belonged. The word *Otolithus* being evidently not regarded as a generic name, the specific names have no standing in the system of nomenclature.

On the subject of the otoliths of fishes see also Higgins, E. T. 1867 A., and Koken, E. 1891 A.

Otolithus (Carangidarum) americanus Kok., p. 277, pl. xix, figs. 1-3.

Otolithus (Apogonidarum) hospes Kok., p. 278, pl. xviii, fig. 15.

Otolithus (Pagell) elegantulus Kok., p. 279, pl. xvii, figs. 5, 6.

Otolithus (Sparidarum) insuetus Kok., p. 280, pl. xvii, fig. 9.

Otolithus (Sciaenidarum) radians Kok., p. 280, pl. xix, figs. 7, 8.

Otolithus (Sciaenidarum) gemma Kok., p. 281, pl. xix, figs. 9-13.

Otolithus (Sciaenidarum) eporrectus Kok., p. 282, pl. xviii, figs. 16, 17.

Otolithus (Sciaenidarum) claybornensis Kok., p. 283, pl. xix, figs. 1-4.

Otolithus (Sciaenidarum) intermedius Kok., p. 283, pl. xix, figs. 2, 3.

Otolithus (Sciaenidarum) similis Kok., p. 284, pl. xix, figs. 10, 11, 14.

Otolithus (Sciaenidarum) decipiens Kok., p. 285, pl. xix, figs. 5, 6.

Otolithus (Trachini) levigatus Kok., p. 286, pl. xviii, figs. 13, 14.

Otolithus (Cottidarum) sulcatus Kok., p. 287, pl. xviii, fig. 12.

Otolithus (Triglae) cor Kok., p. 287, pl. xviii, fig. 10.

- Otolithus (Orpox) comes* Kok., p. 288, pl. xvii, fig. 12.
Otolithus (Mugilidarum) debilis Kok., p. 288, pl. xvii, fig. 8.
Otolithus (Gadidarum) meyeri Kok., p. 289, pl. xviii, figs. 8, 9.
Otolithus (Gadidarum) elevatus Kok., p. 290, pl. xviii, figs. 4, 5.
Otolithus (Gadidarum) mucronatus Kok., p. 290, pl. xvii, figs. 10, 11.
Otolithus (Platessa) sector Kok., p. 292, pl. xvii, figs. 14-16.
Otolithus (Sole) glaber Kok., p. 293, pl. xviii, fig. 3.
Otolithus (Congeris) brevior Kok., p. 293, pl. xviii, fig. 7.
Otolithus (Inc. sedis) aff. *umbonata* Kok., p. 294.

Class BATRACHIA Macartney.

Macartney, J., 1802, Lectures on Comp. Anat., i. tab. 3.

This class of animals is designated by some of the following authors *Batrachia*; by others, *Amphibia*.

- Baur, G. 1886 B, p. 380.
 1888 C, p. 2.
 1896 C, p. 664.
 Beard, J. 1890 A.
 Born, G. 1876 A.
 1880 A.
 Boulenger, G. A. 1892 A.
 1892 B.
 Calori, L. 1894 A.
 Cope, E. D. 1868 J.
 1869 M, p. 3.
 1875 D.
 1879 A, p. 38.
 1884 I, p. 44.
 1884 O, p. 100.
 1884 P.
 1884 HH.
 1885 G.
 1887 S, p. 331.
 1888 H.
 1888 O.
 1888 AA, p. 244.
 1889 D.
 1889 R, p. 860.
 1891 N, p. 28.
 1892 D, p. 211.
 1892 N.
 1896 B, p. 43.
 Cuvier, G. 1834 A, x, pp. 265, 386, pls. ccliii-cclv.
 Gadow, H. 1896 A.
 1896 A, p. 12.
 Gaupp, E. 1891 A.
 1894 A.
 1900 A.
 Gegenbaur, C. 1865 B, p. 52.
 1876 A.
 1896 A.
 Gill, T. 1900 A, p. 730.
 Goepfert, E. 1895 B.
 1896 A.
 Haeckel, E. 1895 A, p. 266.
 Hancock and Atthey 1868 A, p. 266.
 Hase, C. 1893 A.
 Hay, O. P. 1895 A.
 1899 F, p. 682.
 Hoffmann, C. K. 1874 A.
 1876 A.
 1878 A.
 Howes, G. B. 1888 A.
 1888 B.
 Huxley, T. H. 1867 B.
 1870 A.
 1872 A, p. 149.
 1875 A.
 1875 C.
 1876 B, xiii, pp. 411, 429.
 Kehler, G. 1886 A, p. 73.
 Kingsley and Ruddick 1900 A, p. 227.
 Köstlin, O. 1844 A.
 Levy, H. 1896 A.
 Leydig, F. 1876 A.
 Lydekker, R. 1890 A, p. 121.
 Marsh, O. C. 1877 E.
 1896 B, p. 408.
 Müller, J. 1831 A, p. 199. (Nuda.)
 Nicholson and Lydekker 1889 A, p. 1018.
 Osborn, H. F. 1899 I, p. 156.
 Owen, R. 1842 A, p. 181.
 1845 B, p. 187.
 1860 A, pp. 154, 160.
 1866 A.
 Parker, W. K. 1868 A, p. 58.
 1879 B, pp. 31, 61.
 Peters, K. 1896 A.
 Stannius, H. 1856 A. (Amphibia dipnoa.)
 Steinmann and Döderlein 1890 A, p. 601.
 Walter F. 1887 A.
 Wiedersheim, R. 1876 A.
 1887 A.
 1889 A, p. 432.
 1890 A, p. 19.
 Woodward, A. S. 1898 B, p. 122.
 Zittel, K. A. 1890 A, pp. 337, 432.
 Zwick, W. 1897 A.

Order STEGOCEPHALI Cope.

Cope, E. D. 1868 J, p. 209.

Baur, G. 1886 H.

- 1886 M, p. 304.
 1889 F, p. 469.
 1894 A.
 1896 C.

Burkhardt, R. 1895 A.

- Cope, E. D. 1869 M, p. 6.
 1875 D, pp. 352-356.
 1875 X, p. 10.
 1884 F, p. 26.
 1885 G, p. 243.

- Cope, E. D. 1887 S. (Rhachitomi, Embolomeri, Stegocephali.)
 1888 V.
 1888 AA, p. 248.
 1889 R, p. 861.
 1891 N, p. 28.
 1892 Z.
 1896 C, p. 856.
 1896 B, p. 43.
- Credner, H. 1881 A.
 1882 A.
 1883 A.
 1885 A.
 1886 A.
 1887 A.
 1888 A, p. 555.
 1889 A.
 1890 A.
 1893 A.
- Fraas, E. 1889 A, p. 8.
 Fritsch, A. 1883 A (1879), p. 68.
 Gadow, H. 1896 A, p. 23.
 1898 A, p. 12.
 Gaupp, E. 1894 A.
 1896 B, p. 56.
 Gegenbaur, C. 1896 A, p. 8.
- Gegenbaur, C. 1898 A.
 Geinitz and Deilmüller 1882 A.
 Goepfert, H. 1896 A, p. 431.
 Haeckel, E. 1896 A, p. 273.
 Hay, O. P. 1899 F, p. 682.
 Jaekel, O. 1896 B, p. 129.
 Kehner, F. A. 1876 A.
 Lortet, L. 1892 A, p. 125.
 Lydekker, R. 1890 A, p. 139. (Labyrinthodontia.)
 Maggi, L. 1898 A.
 Miall, L. C. 1874 A. (Labyrinthodontia.)
 1876 A. (Labyrinthodontia.)
 Nicholson and Lydekker 1889 A, p. 1021. (Labyrinthodontia.)
 Osborn, H. F. 1899 I, p. 157.
 1900 A, p. 4.
 Pollard, H. B. 1892 A, p. 408.
 Röse, C. 1897 A, p. 48.
 Rohon, J. V. 1899 B, p. 13. ("Stegocephalen.")
 Seeley, H. G. 1888 D, p. 95. (Labyrinthodontia.)
 1892 A, p. 333. (Labyrinthodontia.)
 Steinmann and Döderlein 1890 A, p. 608.
 Wiedersheim, R. 1878 A, p. 88.
 Woodward, A. S. 1896 B, p. 123. (Stegocephalia.)
 Zittel, K. A. 1890 A, p. 344.

Suborder MICROSAURIA Cope.

- Cope, E. D. 1868 J, p. 210.
 Baur, G. 1897 B.
 Case, E. C. 1896 B, p. 505.
 Cope, E. D. 1868 J, p. 210. (Xenorhachia.)
 1869 M, pp. 6, 8. (Microsauria, Xenorhachia.)
 1875 D, p. 356. (Microsauria, Xenorhachia.)
 1882 B, p. 452.
 1888 V. (Lepospondyli.)
 1889 D, p. 13. (Stegocephali.)
 1889 R, p. 861.
 1891 N, pp. 28, 30.
 1896 B, pp. 43, 47.
- Dawson, J. W. 1892 A.
 1896 A, p. 73.
- Fraas, E. 1889 A, p. 8. (Lepospondyli.)
 Fritsch, A. 1883 A (1879), pp. 33, 68. (Microsauria alistopoda.)
- Fritsch, A. 1889 B (1885), p. 73.
 Fürbringer, M. 1900 A, p. 284.
 Gadow, H. 1898 A, p. 12. (Lepospondyli.)
 Haeckel, E. 1896 A, p. 268. (Lepospondyli); p. 274. (Progonamphibia.)
 Hay, O. P. 1895 A, p. 45. (Lepospondyli.)
 Lydekker, R. 1890 A, p. 196. (Microsauri); p. 205. (Aistopoda); p. 205. (Branchiosauria.)
 Miall, L. C. 1890 A, p. 151. (Microsauria, Aistopoda, Nectridia, Heleothrepta.)
 Nicholson and Lydekker 1889 A, p. 1025.
 Osborn, H. F. 1899 I, p. 156.
 Wiedersheim, R. 1878 A, p. 89.
 Woodward, A. S. 1896 B, p. 127. (Branchiosauria); p. 129. (Aistopoda); p. 130. (Microsauria).
 Zittel, K. A. 1890 A, p. 370. (Lepospondyli.)

PROTRITONIDÆ.

Nicholson and Lydekker 1889 A, pp. 1022, 1039.

Unless otherwise indicated the following authors refer to this family under the name *Branchiosauridae*. If *Pelion* really belongs to this family the family name should be *Pelionidae*. References to *Branchiosaurus* are also added.

- Baur, G. 1888 C, p. 63. (Branchiosaurus.)
 Cope, E. D. 1875 X, p. 11. (Peliontidae.)
 Credner, H. 1881 A. (Branchiosaurus.)
 1881 B. (Branchiosaurus.)
 1883 A. (Branchiosaurus.)
 1884 A. (Branchiosaurus.)

- Credner, H. 1887 A. (Branchiosaurus.)
 Fritsch, A. 1876, A, p. 72. (Branchiosaurus.)
 1883 A (1879), p. 69.
 1883 A (1880), p. 93.
 Gadow, H. 1896 A, p. 23. (Branchiosaurus.)
 Gaudry, A. 1883 A, p. 258. (Protriton, Branchiosaurus.)
 Hay, O. P. 1895 A, p. 45.
 Jaekel, O. 1896 A, p. 1. (Branchiosaurus.)
 Lydekker, R. 1890 A, p. 210. (Protritonida.)
 Maggi, L. 1898 A, figs. 1, 3. (Branchiosaurus.)
 Zittel, K. A. 1890 A, p. 370.

SPARODUS Fritsch. Type *S. validus* Fritsch.

- Fritsch, A. 1876 A, p. 73.
 Dawson, J. W. 1882 A, p. 643, pl. xi, figs. 52-56.
 1896 A, p. 75.
 Fritsch, A. 1876 A, p. 76. (*Batrachoecephalus*, preoccupied.)
 1883 A (1879), p. 84.
 Gadow, H. 1896 A, p. 28.
 Lydekker, R. 1890 A, p. 212.

Zittel, K. A. 1890 A, p. 375.
 It is doubtful to which family this genus belongs.

Sparodus sp. indet.

Dawson, J. W. 1895 A, p. 75.
 Coal-measures; Nova Scotia.

AMPHIBAMUS Cope. Type *A. grandiceps* Cope.

- Cope, E. D. 1865 A.
 Baur, G. 1888 C, p. 63.
 Cope, E. D. 1866 C.
 1869 M, pp. 7, 8.
 Fritsch, A. 1883 A (1879), p. 60.
 Miall, L. C. 1875 A, p. 181.
 Miller, S. A. 1889 A, p. 618.
 Zittel, K. A. 1890 A, p. 375.
 This genus may belong among the *Hylonomidae*.

Amphibamus grandiceps Cope.

- Cope, E. D. 1865 A.
 1866 C, p. 135, pl. xxxii and text figure.
 1869 M, p. 8.
 Dana, J. D. 1896 A, p. 683, fig. 1108.
 Fritsch, A. 1883 A (1880), p. 93, fig. 44.
 Hay, O. P. 1900 A, p. 120.
 Miller, S. A. 1889 A, p. 618, fig. 1178.
 Coal-measures; Illinois.

PELION Wyman. Type *P. lyellii* Wyman.

- Wyman, J., in Cope, E. D. 1868 J., p. 211. (To replace *Raniceps* Wyman, preoccupied by Cuvier and Kirby.)
 Cope, E. D. 1869 M, p. 9.
 1874 L, p. 269.
 1875 D, p. 389.
 1875 X, p. 11.
 1890 A, p. 50.
 Fritsch, A. 1883 A (1879), p. 64.
 Huxley, T. H. 1863 A, p. 67. (*Raniceps*.)
 Miall, L. C. 1875 A, p. 189.
 Miller, S. A. 1889 A, p. 624.
 Wyman, J. 1858 A, p. 160. (*Raniceps*.)
 Zittel, K. A. 1890 A, p. 375.

Pelion lyellii Wyman.

- Wyman, J. 1858 A, p. 160, fig. 1. (*Raniceps*.)
 Cope, E. D. 1869 M, p. 9.
 1874 L, p. 269.
 1875 D, p. 390, pl. xxvii, fig. 1.
 Dana, J. D. 1896 A, p. 683, fig. 1109.
 Fritsch, A. 1883 A (1879), p. 94, fig. 45.
 Gaudry, A. 1875 A.
 Lesley, J. P. 1889 A, p. 613, figure.
 Miller, S. A. 1889 A, p. 624, fig. 1190.
 Newberry, J. S. 1868 A, p. 144. (*Raniceps*.)
 Wyman, J., in Cope, E. D. 1868 J, p. 211.
 Coal-measures; Ohio.

MOLGOPHIDÆ.

- Cope, E. D. 1875 D, p. 357.
 1875 D, p. 357. (*Phlegethontidæ*.)
 1875 X, p. 11. (*Phlegethontidæ*, *Molgophidæ*.)
 Fritsch, A. 1876 A, p. 72. (Genus *Dolichosoma*.)
 1883 A (1879), p. 107. (*Aistopoda*.)
 Lydekker R. 1890 A, p. 206. (*Dolichosomatidæ*.)

- Miall, L. 1876 A, pp. 151, 171. (*Aistopoda*.)
 Nicholson and Lydekker 1889 A, p. 1024. (*Dolichosomatidæ*.)
 Wiederhelm, R. 1878 A, p. 42. (*Phlegethontidæ*, *Molgophidæ*.)
 Zittel, K. A. 1890 A, p. 383. (*Aistopoda*.)

PHLEGETHONTIA Cope. Type *P. linearis* Cope.

- Cope, E. D. 1871 L.
 1872 JJ.
 1874 L, p. 262.
 1875 D, pp. 357, 366.
 Fritsch, A. 1883 A (1879), p. 64.
 Miall, L. C. 1875 A, p. 190.
 Miller, S. A. 1889 A, p. 624.
 Nicholson and Lydekker 1889 A, p. 1024.
 Zittel, K. A. 1890 A, p. 383.

Phlegethontia linearis Cope.

- Cope, E. D. 1871 L.
 1874 L, p. 262.
 1875 D, p. 367, pl. xliii, figs. 1, 2.

- Fritsch, A. 1883 A (1879), p. 107, fig. 54.
 Lesley, J. P. 1889 A, p. 634, figure.
 Miller, S. A. 1889 A, p. 624, fig. 1191.
 Coal-measures; Ohio.

Phlegethontia serpens Cope.

- Cope, E. D. 1874 L, 263.
 1871 L. (No description.)
 1875 D, p. 367, pl. xxxii, fig. 2.
 Fritsch, A. 1883 A (1879), p. 107, fig. 53.
 Lesley, J. P. 1889 A, p. 635, figure.
 Coal-measures; Ohio.

MOLGOPHIS Cope. Type *M. macrurus* Cope.

Cope, E. D. 1868 J, p. 220.

1869 M, p. 20.

1874 L, p. 268.

1875 D, p. 368.

Fritsch, A. 1883 A (1879), p. 63.

Miall, L. C. 1875 A, p. 188.

Miller, S. A. 1889 A, p. 623.

Nicholson and Lydekker 1889 A, p. 1024.

Zittel, K. A. 1890 A, p. 388.

Molgophis brevicostatus Cope.

Cope, E. D. 1875 D, p. 369, pl. xlv, fig. 1.

Fritsch, A. 1883 A (1879), p. 107, fig. 55.

Miller, S. A. 1889 A, p. 623, fig. 1188.

Coal-measures; Ohio.

Molgophis macrurus Cope.

Cope, E. D. 1868 J, p. 220.

1869 M, p. 21.

1875 D, p. 368, pl. xlili, fig. 8.

Wyman, J. 1858 A, p. 160, fig. 1. (No name. May be not this species.)

Coal-measures; Ohio.

Molgophis wheatleyi Cope.

Cope, E. D. 1874 L, p. 263.

1875 D, p. 369, pl. xlv, fig. 1.

Coal-measures; Ohio.

HYLONOMIDÆ.

Fritsch, A. 1883 A, p. 159.

Lydekker, R. 1890 A, p. 201.

Nicholson and Lydekker 1889 A, p. 1027. (Hypoplezionidæ.)

Steinmann and Döderlein 1890 A, p. 608.

HYLONOMUS Dawson. Type *H. lyelli* Dawson.

Dawson, J. W. 1860 A, p. 274.

Baur, G. 1897 B.

Cope, E. D. 1871 A, p. 9.

Credner, H. 1885 A, p. 274.

1890 A.

Dawson, J. W. 1863 A, pp. 430, 446.

1863 B.

1863 D, pp. 160, 163, 281.

1868 A, p. 370.

1862 A, p. 634.

1891 B, p. 164.

1894 A, p. 279.

1895 A, p. 73.

Fritsch, A. 1883 A (1879), p. 59.

1883 A (1883), p. 159 (Hylonomus); p. 160 (Hypoplezion).

Fürbringer, M. 1900 A, pp. 286, 296, 564.

Gadow, H. 1896 A, p. 28.

Huxley, T. H. 1863 A, p. 67.

Lydekker, R. 1890 A, p. 201.

Miall, L. C. 1875 A, p. 173.

Miller, S. A. 1889 A, p. 622.

Nicholson and Lydekker 1889 A, p. 1027.

Steinmann and Döderlein 1890 A, p. 608.

Woodward, A. S. 1898 B, p. 131. (Hypoplezion, Hylonomus.)

Zittel, K. A. 1890 A, p. 376.

Hylonomus latidens Dawson.

Dawson, J. W. 1882 A, p. 637, pl. xxxix, figs. 18-22.

1895 A, p. 74.

Lydekker, R. 1890 A, p. 224.

Coal-measures; Nova Scotia.

Hylonomus lyelli Dawson.

Dawson, J. W. 1860 A, p. 274, figs. 14-18.

Cope, E. D. 1871 A, p. 9.

Dawson, J. W. 1862 A.

1863 A, pp. 430, 446.

Dawson, J. W. 1863 C, p. 439.

1863 D, pp. 167, 281, pla. iv, figs. 23-31; pl. v, figs. 1-29.

1868 A, p. 370, fig. 144.

1878 A, p. 370; suppl., p. 61.

1882 A, p. 635, pl. xxxix, figs. 1-14; pl. xlv, fig. 140.

1891 A, pl. viii.

1891 B, p. 149.

1894 A, p. 279.

1894 B, p. 6.

1895 A, p. 74.

Lesley, J. P. 1889 A, p. 290, figures.

Lydekker, R. 1890 A, p. 222.

Miall, L. C. 1875 A, p. 173.

Owen, R. 1862 A, p. 238, pl. ix, figs. 1-5.

Coal-measures; Nova Scotia.

Hylonomus multidentis Dawson.

Dawson, J. W. 1882 A, p. 637, pl. xxxix, figs. 23-26.

1895 A, p. 74.

Coal-measures; Nova Scotia.

Hylonomus wymani Dawson.

Dawson, J. W. 1860 A, p. 277, figs. 27-29.

Cope, E. D. 1871 A, p. 9.

Dawson, J. W. 1862 A.

1863 A, p. 430.

1863 C, p. 439.

1863 D, pp. 270, 282, pl. vi, figs. 18-31.

1868 A, p. 378, figs. 146a-d.

1878 A, p. 378, figs. 146a-d.

1882 A, p. 637, pl. xxxix, figs. 15-17.

1894 A, p. 279.

1895 A, p. 74.

Lesley, J. P. 1889 A, p. 291, figure.

Lydekker, R. 1890 A, 224.

Miall, L. C. 1875 A, p. 174.

Owen, R. 1862 A, p. 240, pl. ix, figs. 11-15.

Coal-measures; Nova Scotia.

SMILERPETON Dawson. Type *Hylonomus acidentatus* Dawson.

- Dawson, J. W. 1882 A, p. 634.
 1894 A, p. 279.
 1896 A, p. 74.
 Gadow, H. 1896 A, p. 28.
 Lydekker, R. 1890 A, p. 224. (*Smilerpetum*.)
 Nicholson and Lydekker 1889 A, p. 1027.
 Zittel, K. A. 1890 A, p. 376.
Smilerpeton acidentatum Dawson.
 Dawson, J. W. 1880 A, p. 275, figs. 19-23. (*Hylonomus*.)
 Cope, E. D. 1871 A, p. 9. (*Hylonomus*.)
 Dawson, J. W. 1862 A. (*Hylonomus*.)
 1863 B, p. 473. (*Hylonomus*.)
 1863 C, p. 439. (*Hylonomus*.)

- Dawson, J. W. 1863 D, pp. 268, 287, pl. vi, figs. 1-16. (*Hylonomus*.)
 1868 A, p. 376, fig. 145a-4. (*Hylonomus*.)
 1878 A, p. 376, figs. 145a-4. (*Hylonomus*.)
 1882 A, p. 638, pl. xi, figs. 28-45.
 1894 A, p. 279.
 1896 A, p. 75.
 Lesley, J. P. 1889 A, p. 289, figure. (*Hylonomus*.)
 Lydekker, R. 1890 A, p. 224. (*Smilerpetum*.)
 Miall, L. C. 1875 A, p. 174.
 Miller, S. A. 1889 A, p. 622, fig. 1186. (*Hylonomus*.)
 Owen, R. 1862 A, p. 239, pl. ix, fig. 6.
 Coal-measures; Nova Scotia.

HYLERPETON Owen. Type *H. dawsonii* Owen.

- Owen, R. 1862 A, p. 241.
 Dawson, J. W. 1876 A, p. 443.
 1878 A, suppl., p. 58.
 1882 A, p. 634.
 1896 A, p. 74.
 Fritsch, A. 1883 A (1879), p. 59.
 Huxley, T. H. 1863 A, p. 67.
 Lydekker, R. 1890 A, p. 224. (*Hylerpetum*.)
 Miall, L. C. 1875 A, p. 174.
 Miller, S. A. 1889 A, p. 622.
 Zittel, K. A. 1890 A, p. 376.
Hylerpeton dawsonii Owen.
 Owen, R. 1862 A, p. 241, pl. ix.
 Cope, E. D. 1869 M, p. 13.
 Dawson, J. W. 1863 A, p. 431.
 1863 B, p. 473.
 1863 C, p. 439.
 1863 D, pp. 272, 282, pl. vi, figs. 32-46.
 1868 A, p. 380, fig. 147.
 1876 A, pp. 442, 443.
 1878 A, p. 380, figs. 147a-d; suppl., p. 58.

- Dawson, J. W. 1882 A, p. 639, pl. xli, figs. 62-85.
 1894 B, p. 6.
 1896 A, p. 74.
 Gadow, H. 1896 A, p. 28.
 Lesley, J. P. 1889 A, p. 289, figure.
 Lydekker, R. 1890 A, p. 225.
 Miall, L. C. 1875 A, p. 194.
 Miller, S. A. 1889 A, p. 622, fig. 1185.
 Coal-measures; Nova Scotia.

Hylerpeton intermedium Dawson.

- Dawson, J. W. 1896 A, p. 75.
 Coal-measures; Nova Scotia.

Hylerpeton longidentatum Dawson.

- Dawson, J. W. 1876 A, p. 444.
 1878 A, suppl., p. 58.
 1882 A, p. 640, pl. xliii, figs. 86-109.
 1894 B, p. 6.
 1896 A, p. 74.
 Lydekker, R. 1890 A, p. 225.
 Coal-measures; Nova Scotia.

FRITSCHIA Dawson. Type *Hylerpeton curtidentatum* Dawson.

- Dawson, J. W. 1882 A, p. 634.
 1896 A, p. 75.
 Lydekker, R. 1890 A, p. 225.
 Zittel, K. A. 1890 A, p. 381.
Fritschia curtidentata Dawson.
 Dawson, J. W. 1876 A, p. 444. (*Hylerpeton*.)

- Dawson, J. W. 1878 A, suppl., p. 59. (*Hylerpeton*.)
 1882 A, p. 641, pl. xliiii, figs. 110-128.
 1896 A, p. 75.
 Lydekker, R. 1890 A, p. 225.
 Coal-measures; Nova Scotia.

BRACHYDECTES Cope. Type *B. newberryi* Cope.

- Cope, E. D. 1868 J, p. 214.
 1869 M, p. 14.
 1874 L, p. 268.
 1875 D, pp. 367, 388.
 Dawson, J. W. 1891 B, p. 153.
 Fritsch, A. 1883 A (1879), p. 61.
 Miall, L. C. 1875 A, p. 184.
 Miller, S. A. 1889 A, p. 619.
 Zittel, K. A. 1890 A, p. 377.

Brachydictes newberryi Cope.

- Cope, E. D. 1868 J, p. 214.
 1869 M, p. 14.
 1874 L, p. 269.
 1875 D, p. 388, pl. xxvii, fig. 1.
 Miall, L. C. 1875 A, p. 184.
 Miller, S. A. 1889 A, p. 619, fig. 1180.
 Coal-measures; Ohio.

PTYONIIDÆ.

Cope, E. D. 1875 D, p. 357.

1875 X, p. 11.

Fritsch, A. 1883 A (1880), p. 127. (Nectridea.)

Lydekker, R. 1890 A, p. 196. (Urocordylidæ.)

Miall, L. C. 1875 A, p. 168. (Nectridea.)

Nicholson and Lydekker 1889 A, p. 1025. (Urocordylidæ.)

Wiedersheim, R. 1878 A, p. 42.

KERATERPETON Huxley. Type *K. galvani* Huxley.

Huxley, T. H. 1867 B, p. 354.

Andrews, C. W. 1895 A.

Cope, E. D. 1875 D, p. 371. (Ceraterpeton.)

Fritsch, A. 1883 A (1879), p. 57; p. 136 (1881).

Lydekker, R. 1890 A, p. 197. (Ceraterpetum.)

Maggi, L. 1898 A, fig. 10.

Miall, L. C. 1875 A, p. 170.

Miller, S. A. 1889 A, p. 619. (Ceraterpeton.)

Osborn, H. F. 1898 K, p. 165. (Ceraterpeton.)

Woodward, A. S. 1898 B, p. 132.

Zittel, K. A. 1890 A, p. 379.

Keraterpeton divaricatum Cope.

Cope, E. D. 1885 D, p. 406. (Ceraterpeton.)

Coal-measures; Ohio.

Keraterpeton punctolineatum Cope.

Cope, E. D. 1875 J. (Ceraterpeton punctolineatum.)

1875 D, p. 372 (C. lineopunctatum); pl. xli, fig. 4 (C. punctolineatum).

Coal-measures; Ohio.

Keraterpeton tenuicorne Cope.

Cope, E. D. 1875 D, p. 372 (Ceraterpeton lennicorne, *err. typ.*); pl. xlii, fig. 4 (C. recticorne, *err. typ.*).

1885 D, p. 407. (Ceraterpeton tenuicorne.)

1897 C, p. 85, pl. iii, fig. 2. (Ceraterpeton.)

Osborn, H. F. 1898 K, p. 165. (C. lennicorne.)

Coal-measures; Ohio, Pennsylvania.

OOSTOCEPHALUS Cope. Type *O. amphiuminus* Cope = *O. remex* Cope.

Cope, E. D. 1869 J, p. 218.

1869 M, p. 16.

1871 L.

1872 JJ.

1874 L, p. 266.

1875 D, p. 380.

Fritsch, A. 1883 A (1879), p. 57. (Syn.? of Urocordylus.)

Huxley, T. H. 1867 B, p. 359, pl. xx, figs. 1, 2. (Urocordylus.)

Miall, L. C. 1875 A, p. 169. (Syn. of Urocordylus.)

Miller, S. A. 1889 A, p. 623.

Newberry, J. S. 1868 A, p. 144. (Urocordylus.)

Nicholson and Lydekker 1889 A, p. 1025. (Urocordylus.)

Zittel, K. A. 1890 A, p. 381.

This genus is probably identical with *Urocordylus* Huxley.

Oostocephalus rectidens Cope.

Cope, E. D. 1874 L, p. 268.

Cope, E. D. 1875 D, p. 386, pl. xxvii, figs. 3, 4.

Miall, L. C. 1875 A, p. 170.

Miller, S. A. 1889 A, p. 623, fig. 1189.

Coal-measures; Ohio.

Oostocephalus remex Cope.

Cope, E. D. 1868 J, p. 217. (Sauropleura.)

1868 J, p. 219. (O. amphiuminus.)

1869 M, pp. ii, 17, fig. 2.

1871 G, p. 41. (O. remex and O. amphiuminus.)

1871 O.

1874 L, p. 268.

1875 D, pp. 386, 381, pl. xxvii, fig. 57; pl. xxxi, fig. 1; pl. xxxii, fig. 1; pl. xxxiii, fig. 2; pl. xxxiv, fig. 47.

Fritsch, A. 1883 A (1881), p. 128, fig. 72.

Miall, L. C. 1875 A, p. 170.

Coal-measures; Ohio.

PTYONIUS Cope. Type not designated.

Cope, E. D. 1874 L, p. 264.

1875 D, p. 373.

Fritsch, A. 1883 A. (1879); p. 57. (Syn.? of Urocordylus.)

Miall, L. C. 1875 A, p. 169. (Syn. of Urocordylus.)

Miller, S. A. 1889 A, p. 625.

Zittel, K. A. 1890 A, p. 381.

This genus is probably identical with *Urocordylus* Huxley.

Ptyonius marshii Cope.

Cope, E. D. 1869 M, p. 24. (Colosteus.)

1871 L, p. 177. (Oostocephalus.)

1874 L, p. 265.

1875 D, p. 375, pl. xxvii, fig. 6; pl. xxvii, figs.

2a, 3.

Lesley, J. P. 1889 A, p. 841, figure.

Miall, L. C. 1875 A, p. 170.

Coal-measures; Ohio.

Ptyonius nummifer Cope.

Cope, E. D. 1875 D, p. 374, pl. xli, figs. 2, 3.

Lesley, J. P. 1889 A, p. 842, figures.

Coal-measures; Ohio.

Ptyonius pectinatus Cope.

Cope, E. D. 1868 J, p. 216. (Sauropleura.)

1869 M, p. 20. (Oostocephalus.)

1874 L, p. 266.

1875 D, p. 377, pl. xxvii, fig. 7; pl. xxviii, figs. 2, 4, 6; pl. xxix, fig. 2; pl. xxx, fig. 2; pl. xxxv, figs. 1-3; pl. xli, fig. 1.

Fritsch, A. 1895 B, p. 3. (*P. pectinatus*)
 Lesley, J. P. 1889 A, p. 843, figures.
 Miall, L. C. 1875 A, p. 170.
 Coal-measures; Ohio; Bohem'a?.

***Ptyonius serrula* Cope.**

Cope, E. D. 1874 L, p. 266.
 1871 L, p. 177. (*Oestocephalus serrula*; no description.)
 1875 D, p. 379, pl. xxviii, fig. 5?; pl. xxx, fig. 1.
 Lesley, J. P. 1889 A, p. 844, figure.
 Miall, L. C. 1875 A, p. 170.

Miller, S. A. 1889 A, p. 626, fig. 1192.
 Coal-measures; Ohio.

***Ptyonius winchellianus* Cope.**

Cope, E. D. 1874 L, p. 265.
 1871 L. (*Oestocephalus winchellianus*; no description.)
 1875 D, p. 376, pl. xxviii, fig. 1.
 Fritsch, A. 1893 A (1881), p. 128, fig. 71.
 Lesley, J. P. 1889 A, p. 844, figure. (*P. uinchellianus*.)
 Miall, L. C. 1875 A, p. 170.
 Coal-measures; Ohio.

Otnerperpeton Cope. Type *C. alveolatus* Cope.

Cope, E. D. 1897 C, p. 88.

***Otnerperpeton alveolatus* Cope.**

Cope, E. D. 1897 C, p. 88, pl. iii, fig. 1.
 Coal-measures; Pennsylvania.

TUDITANIDÆ.

Cope, E. D. 1875 D, p. 387.
 1875 X, p. 11 (*Tuditania*); p. 12 (*Cocytinidae*).
 Fritsch, A. 1893 A, p. 173. (*Microbrachida*.)

Nicholson and Lydekker 1899 A, p. 1927. (*Microbrachida*.)
 Wiedersheim, R. 1878 A, p. 42.

TUDITANUS Cope. Genus based on *T. punctulatus* and *T. brevirostris*.

Cope, E. D. 1874 L, p. 271.
 1871 L. (No definition; no described species.)
 1872 JJ. (No definition; no described species.)
 1875 D, p. 391.
 1896 C.
 Fritsch, A. 1893 A (1879), p. 65.
 1893 A, p. 173.
 Miall, L. C. 1875 A, p. 191.
 Miller, S. A. 1889 A, p. 626.
 Nicholson and Lydekker 1899 A, p. 1027.
 Zittel, K. A. 1890 A, p. 378.

Cope, E. D. 1875 D, p. 395.
 Miller, S. A. 1889 A, p. 627. (Syn. of *Keraterpeton punctolineatum*.)
 Coal-measures; Ohio.

***Tuditanus obtusus* Cope.**

Cope, E. D. 1868 J, p. 213. (*Dendroperpeton*.)
 1869 M, pp. 8, 12, fig. 1. (*Dendroperpeton*.)
 1874 L, p. 274.
 1875 D, p. 396.
 1895 D, p. 407.
 Coal-measures; Ohio.

***Tuditanus brevirostris* Cope.**

Cope, E. D. 1874 L, p. 272.
 1875 D, p. 393, pl. xxvi, figs. 3, 4.
 Lesley, J. P. 1890 A, p. 1236, figure.
 Coal-measures; Ohio.

***Tuditanus huxleyi* Cope.**

Cope, E. D. 1874 L, p. 274.
 1875 D, p. 397, pl. xxxiv, fig. 2.
 Lesley, J. P. 1890 A, p. 1237, figure.
 Coal-measures; Ohio.

***Tuditanus longipes* Cope.**

Cope, E. D. 1874 L, p. 210. (*Sauroplesura*.)
 1875 D, p. 398, pl. xxvi, fig. 2. (Not pl. xxxiv, fig. 1, *Idæ* Cope.)
 1896 C.
 1897 C, p. 88.
 Lesley, J. P. 1890 A, p. 1257, figures.
 Coal-measures; Ohio.

***Tuditanus mordax* Cope.**

Cope, E. D. 1874 L, p. 274.

***Tuditanus punctulatus* Cope.**

Cope, E. D. 1874 L, p. 271.
 1875 D, p. 392, pl. xxxiv, fig. 1. (*T. longipes* on expl. of plate by error.)
 1896 C.
 1897 C, p. 88. (*Isodectes*.)
 1898 B, p. 61. (*Isodectes*.)
 Fritsch, A. 1893 A, p. 173, fig. 110.
 Coal-measures; Ohio.

***Tuditanus radiatus* Cope.**

Cope, E. D. 1874 L, p. 273.
 1875 D, p. 394, pl. xxvii, fig. 1; pl. xxxiv, fig. 3; text, fig. 10.
 Lesley, J. P. 1890 A, p. 1238, figure.
 Miller, S. A. 1889 A, p. 626, fig. 1194.
 Coal-measures; Ohio.

***Tuditanus tabulatus* Cope.**

Cope, E. D. 1877 A, p. 577.
 Coal-measures; Ohio.

¹ On plate and explanation this species is called *C. foveolatus*.

COCYTINUS Cope. Type *C. gyrinoides* Cope.

Cope, E. D. 1871 L.

1872 JJ.

1874 L, p. 276.

1875 D, p. 360.

1875 X, p. 12.

Fritsch, A. 1883 A (1879), p. 61; p. 173 (1883).

Miall, L. C. 1875 A, p. 186.

Miller, S. A. 1889 A, p. 619.

Nicholson and Lydekker 1889 A, p. 1027.

Zittel, K. A. 1890 A, p. 378.

The family position of this genus is doubtful.

Cocytinus gyrinoides Cope.

Cope, E. D. 1871 L.

1874 L, p. 278.

1875 D, p. 364, pl. xxxix, fig. 4.

Fritsch, A. 1883 A, p. 173, fig. 111.

Miller, S. A. 1889 A, p. 620, fig. 1182.

Coal-measures; Ohio.

DIPLOCAULIDÆ.

Cope, E. D. 1881 K, p. 163.

Cope, E. D. 1882 B, p. 452.

DIPLOCAULUS Cope. Type *D. salamandroides* Cope.

Cope, E. D. 1877 E, p. 187.

1881 K, p. 163.

1882 B, p. 451.

Miller, S. A. 1889 A, p. 621.

Zittel, K. A. 1890 A, p. 382.

Diplocaulus limbatus Cope.

Cope, E. D. 1896 G, p. 456.

Permian; Texas.

Diplocaulus magnicornis Cope.

Cope, E. D. 1882 B, p. 453.

Case, E. C. 1900 A, p. 710.

Cope, E. D. 1882 HH.

1888 BB, p. 286.

1896 G, p. 455, pl. ix.

Permian; Texas.

Diplocaulus salamandroides Cope.

Cope, E. D. 1877 E, p. 187.

Case, E. C. 1900 A, p. 710, pl. i, figs. 16a-17b.

Cope, E. D. 1881 K, p. 163.

1888 BB, p. 286.

Permian; Illinois.

LEPOSPONDYLOUS GENERA OF UNCERTAIN POSITION.

AMBLYODON Dawson. Type *A. problematicum* Dawson.

Dawson, J. W. 1882 A, p. 635.

Amblyodon problematicus Dawson.

Dawson, J. W. 1882 A, p. 644, pl. xl, figs. 57-61.

Dawson, J. W. 1895 A, p. 75.

Coal-measures; Nova Scotia.

HYPHASMA Cope. Type *H. lævis* Cope.

Cope, E. D. 1875 J.

1875 D, p. 387.

Fritsch, A. 1883 A (1881), p. 127.

Miller, S. A. 1889 A, p. 622.

Zittel, K. A. 1890 A, p. 382.

Hyphasma lævis Cope.

Cope, E. D. 1875 J.

1875 D, p. 387, pl. xxxvii, fig. 4.

Miller, S. A. 1889 A, p. 622, fig. 1187.

Coal-measures; Ohio.

EURYTHORAX Cope. Type *E. sublævis* Cope.

Cope, E. D. 1871 L.

1874 L, p. 275.

1875 D, pp. 357, 401.

Fritsch, A. 1883 A (1879), p. 62.

Miall, L. C. 1875 A, p. 186.

Miller, S. A. 1889 A, p. 622.

Zittel, K. A. 1890 A, p. 378.

Eurythorax sublævis Cope.

Cope, E. D. 1871 L.

1872 JJ.

1874 L, p. 275.

1875 D, p. 402, pl. xlii, fig.

Coal-measures; Ohio.

THYRSIDIUM Cope. Type *T. fasciculare* Cope.

Cope, E. D. 1875 D, p. 365.

Miller, S. A. 1889 A, p. 626.

Zittel, K. A. 1890 A, p. 382.

Thyrsideium fasciculare Cope.

Cope, E. D. 1875 D, p. 365, pl. xlii, fig. 3.

Coal-measures; Ohio.

PLEUROPTYX Cope. Type *P. clavatus* Cope.

Cope, E. D. 1875 J.
1875 D, pp. 357, 370.
Miller, S. A. 1889 A, p. 624.

Pleuroptyx clavatus Cope.

Cope, E. D. 1875 J.
1875 D, p. 370, pl. xlii, fig. 1; pl. xlii, fig. 2.
Coal-measures; Ohio.

CERCARIOMORPHUS Cope. Type *C. parvisquamis* Cope.

Cope, E. D. 1885 D, p. 406.
Subordinal position doubtful.

Cercariomorphus parvisquamis Cope.

Cope, E. D. 1885 D, p. 406.
Coal-measures; Ohio.

Suborder APÆCOSPONDYLI nom. nov.

Baur, G. 1886 K. (Embolomeri.)
1888 C, p. 3. (Ganocephala, Rhachitomi, Embolomeri.)
Case, E. C. 1878 B, p. 510 (Rhachitomi); p. 511 (Embolomeri.)
Cope, E. D. 1868 J, pp. 210, 221. (Labyrinthodontia and Ganocephala.)
1875 D, p. 356. (Labyrinthodontia and Ganocephala.)
1880 A, p. 49. (Labyrinthodontia and Ganocephala.)
1880 J. (Ganocephala.)
1880 L, p. 610. (Embolomeri, Ganocephala.)
1882 T. (Rhachitomi.)
1884 P, pp. 26, 36. (Embolomeri, Stegocephali.)
1885 G, p. 243. (Embolomeri.)
1885 W. (Embolomeri.)
1887 S, p. 331. (Rhachitomi, Embolomeri.)
1888 H. (Ganocephala.)
1888 V. (Ganocephala, Embolomeri, Rhachitomi.)
1888 AA. (Embolomeri, Rhachitomi.)
1889 D, p. 13. (Ganocephala, Embolomeri, Rhachitomi.)
1889 E, p. 361. (Ganocephala, Embolomeri, Rhachitomi.)
1891 F, p. 645. (Embolomeri, Rhachitomi, Ganocephali.)
1891 N, p. 28. (Ganocephali, Rhachitomi, Embolomeri.)
1896 B, p. 43. (Ganocephala, Rhachitomi, Embolomeri.)
Credner, H. 1882 A. (Stegocephali.)
1883 A. (Stegocephali.)
Credner, H. 1885 A. (Stegocephali.)

Credner, H. 1886 A. (Stegocephali.)
1888 A. (Stegocephali.)
1889 A. (Stegocephali.)
1890 A. (Stegocephali.)
Dawson, J. W. 1894 A, p. 265. (Labyrinthodontia.)
Fraas, E. 1889 A, p. 8. (Temnospondyli, Stereospodlyi.)
Fritsch, A. 1883 A (1879), p. 33. (Labyrinthodontia.)
Gadow, H. 1896 A, p. 12. (Temnospondyli.)
Hoffman, C. K. 1874 A, p. 47. (Labyrinthodontia.)
Huxley, T. H. 1863 A. (Labyrinthodontia.)
1870 A. (Labyrinthodontia.)
1872 A, p. 150. (Labyrinthodontia.)
1876 B, xlii, p. 412. (Labyrinthodontia.)
Lydekker, R. 1890 A, p. 139. (Labyrinthodontia vera.)
Marsh, O. C. 1877 E. (Labyrinthodontia.)
Meyer, H. 1857 A, p. 208. ("Labyrinthodontes.")
Miall, L. C. 1875 C. (Labyrinthodontes.)
Nicholson and Lydekker 1889 A, p. 102.
Owen, R. 1845 B, pp. 182, 196. ("Labyrinthodonts.")
1860 A, pp. 155, 158, 163. (Ganocephala, Labyrinthodontia.)
1860 E, p. 182. (Ganocephala.)
1866 A, p. 14. (Labyrinthodontia and Ganocephala.)
Steinmann and Döderlein 1890 A, p. 611. (Embolomeri.)
Wiedersheim, R. 1878 A. (Ganocephala, Labyrinthodontia.)
Woodward, A. S. 1896 B, p. 132. (Labyrinthodontia.)
Zittel, K. A. 1890 A, p. 384 (Temnospondyli); p. 397 (Stereospondyli).

DENDRERPETONTIDÆ.

Fritsch, A. 1889 B (1885), p. 5.
Cope, E. D. 1875 X, p. 10. (Baphetidae.)
Dawson, J. W. 1895 A, p. 75. (Dendrerpetonidae.)

Lydekker, R. 1890 A, p. 170. (Dendrerpetidae.)
Nicholson and Lydekker 1889 A, p. 1032. (Dendrerpetidae.)

DENDRERPETON Owen. Type *D. acadianum* Owen.

Owen, R. 1853 C, p. 66.
Cope, E. D. 1868 J, p. 212.
1869 M, p. 12.
1890 A, p. 50.

Credner, H. 1888 A, p. 550.
Dawson, J. W. 1860 A, p. 273.
1863 A, pp. 431, 444.
1863 B.

- Dawson, J. W. 1863 D, pp. 81, 282.
 1868 A, p. 362.
 1878 A, p. 362; suppl. p. 60.
 1882 A, p. 636.
 1891 B, p. 154.
 1896 A, p. 76.
 Fritsch, A. 1883 A (1879), p. 58.
 1889 B, p. 6.
 Huxley, T. H. 1863 A, p. 67.
 Lydekker, R. 1890 A, p. 170. (*Dendrerpetum*.)
 Maggi, L. 1898 A, fig. 19.
 Miall, L. C. 1875 A, p. 550.
 Miller, S. A. 1889 A, p. 620.
 Nicholson and Lydekker 1889 A, p. 103.
 Zittel, K. A. 1890 A, p. 396.

Dendrerpeton acadianum Owen.

- Owen, R. 1853 C.
 Cope, E. D. 1868 J, p. 214.
 1869 M, pp. 9, 13.
 Dawson, J. W. 1860 A, p. 273, figs. 10-13.
 1862 A.
 1863 A, p. 431.
 1863 B, p. 470.
 1863 C.
 1863 D, pp. 81, 159, 282, pls. iii, vi.
 1868 A, p. 362, fig. 142.
 1876 A, pp. 440, 443, 445.
 1878 A, p. 362, figs. 142a-f; suppl. p. 60.
 1882 A, p. 642, pl. xl, figs. 46-51; pl. xlv, figs. 129, 130, 132-137.
 1891 B, p. 145, figs. 1-3.
 1894 A, p. 272, figure.

- Dawson, J. W. 1894 B, p. 6.
 1896 A, p. 76.
 Fritsch, A. 1883 A (1879), p. 59.
 1889 B (1885), p. 5, fig. 123.
 Lesley, J. P. 1889 A, p. 198, figures.
 1896 A, pl. dlixii.
 Lydekker, R. 1890 A, p. 223.
 Lyell, C. 1853 A, p. 35.
 Lyell and Dawson 1853 A, pls. ii, iii.
 Marsh, O. C. 1862 B, p. 1.
 Miall, L. C. 1875 A, p. 172.
 Miller, S. A. 1889 A, p. 620, fig. 1183.
 Wyman, J. 1853 C.
 Coal-measures; Nova Scotia.

Dendrerpeton oweni Dawson.

- Dawson, J. W. 1863 D, pp. 161, 282, pl. iv.
 1863 A, p. 431.
 1863 B, p. 470.
 1863 C, p. 438.
 1868 A, p. 368, fig. 143.
 1876 A, pp. 443, 444.
 1878 A, p. 368, figs. 143a-g; suppl. p. 60.
 1882 A, p. 643, pl. xlv, figs. 131, 138, 139.
 1891 B, p. 149.
 1896 A, p. 76.
 Fritsch, A. 1883 A (1879), p. 59.
 Lesley, J. P. 1889 A, p. 196, figures.
 1896 A, pl. dlixii.
 Lydekker, R. 1890 A, p. 223.
 Miall, L. C. 1875 A, p. 172.
 Coal-measures; Nova Scotia.

BAPHETES Owen. Type *B. planiceps* Owen.

- Owen, R. 1854 A, p. 207.
 Dawson, J. W. 1863 D, pp. 8, 282.
 1868 A, p. 359.
 1878 A, p. 328.
 1894 A, p. 266.
 1896 A, p. 76.
 Fritsch, A. 1883 A (1879), p. 61.
 1889 B (1885), p. 5.
 Huxley, T. H. 1863 A, p. 67.
 Miall, L. C. 1875 A, p. 183.
 Miller, S. A. 1889 A, p. 618.
 Nicholson and Lydekker 1889 A, p. 1033.
 Owen, R. 1855 A.
 1860 E, p. 184.
 Zittel, K. A. 1890 A, p. 398.
 The family position of this genus is doubtful.

Baphetes minor Dawson.

- Dawson, J. W. 1870 A.
 1894 A, p. 268.
 Coal-measures; Nova Scotia.

Baphetes planiceps Owe

- Owen, R. 1854 A, pl. ix.
 Cope, E. D. 1869 M, p. 25.
 Dawson, J. W. 1855 A.
 1863 A, p. 430.
 1863 C.
 1863 D, pp. 9, 282, pl. ii.
 1868 A, p. 359, fig. 141.
 1878 A, pp. 328, 359, figs. 137, 141.
 1894 A, p. 266.
 1896 A, p. 76.
 Fritsch, A. 1889 B (1885), p. 5, fig. 124.
 Lesley, J. P. 1889 A, p. 80, figures.
 Miller, S. A. 1889 A, p. 619, fig. 1179.
 Nicholson and Lydekker 1889 A, p. 1033, fig. 962.
 Owen, R. 1855 A.
 Coal-measures; Nova Scotia.

PLATYSTEGOS Dawson. Type *P. loricatum* Dawson.

- Dawson, J. W. 1896 A, p. 76.

Platystegos loricatum Dawson.

- Dawson, J. W. 1896 A, p. 76.
 Coal-measures; Nova Scotia.

SAUROPLEURIDÆ nom. nov.

- Cope, E. D. 1875 D, p. 357. (Colosteidæ.)
 1875 X, p. 10. (Colosteidæ.)
 Wiedersheim R. 1878 A, p. 42. (Colosteidæ.)
 The name *Sauropleuridæ* is demanded be-

cause the genus *Colosteus*, from which *Colosteidæ* is derived, is regarded as a synonym of *Sauropleuræ*.

SAUROPLEURA Cope. Type *S. digitata* Cope.

- Cope, E. D. 1868 J, p. 215.
 1869 M, p. 22. (Colosteus, type, *C. foveatus*.)
 1874 L, p. 269.
 1875 D, pp. 373, 402.
 1875 D, p. 405. (Colosteus.)
 1897 C, p. 88.
 Fritsch, A. 1883 A (1879), p. 61 (Colosteus); pp. 65, 127 (*Sauropleuræ*).
 Miall, L. C. 1875 A, p. 185 (Colosteus); p. 190 (*Sauropleuræ*).
 Miller, S. A. 1889 A, p. 620 (Colosteus); p. 625 (*Sauropleuræ*).
 Zittel, K. A. 1890 A, p. 379 (Colosteus); p. 382 (*Sauropleuræ*).

***Sauropleuræ digitata* Cope.**

- Cope, E. D. 1868 J, p. 216.
 1869 M, pp. 16, 242.
 1874 L, p. 270.
 1875 D, p. 403, pl. xxxiv, fig. 1
 1897 C, p. 88.
 Dawson, J. W. 1891 B, p. 153.
 Fritsch, A. 1883 A (1881), p. 128, fig. 70.
 Lesley, J. P. 1890 A, p. 926, figure.
 Coal-measures; Ohio.

***Sauropleuræ foveata* (Cope).**

- Cope, E. D. 1869 M, p. 24. (Colosteus.)
 1875 D, p. 406, pl. xxxvi, fig. 1.
 Coal-measures; Ohio.

***Sauropleuræ latithorax* Cope.**

- Cope, E. D. 1897 C, p. 86, pl. iii, fig. 4.
 Coal-measures; Ohio.

***Sauropleuræ newberryi* Cope.**

- Cope, E. D. 1875 D, p. 404, pl. xxxvii, figs. 2, 3; pl. xli, fig. 5.
 Lesley, J. P. 1890 A, p. 928, figure.
 Coal-measures; Ohio.

***Sauropleuræ pauciradiata* Cope.**

- Cope, E. D. 1874 L, p. 275. (Colosteus.)
 1875 D, p. 408, pl. xl, figs. 1, 2. (Colosteus.)
 1897 C, p. 86.
 Coal-measures; Ohio.

***Sauropleuræ scutellata* (Newb.).**

- Newberry J. S. 1856 B, p. 98. (Pygopterus.)
 Cope, E. D. 1869 M, p. 23. (Colosteus *crassiscutatus*.)
 1871 G, p. 41. (Colosteus.)
 1873 Q, p. 418. (Colosteus.)
 1874 L, p. 275. (Colosteus.)
 1875 D, p. 407, pl. xxix, fig. 3; pl. xxxiii, fig. 1; pl. xxxvi, fig. 2. (Colosteus.)
 1877 A, p. 578. (Colosteus.)
 1897 C, p. 88. (*Sauropleuræ*.)
 Woodward, A. S. 1891 A, p. 474. ("Doubtful fossil.")
 Coal-measures; Ohio.

LEPTOPHRACTUS Cope. Type *L. obsoletus* Cope.

- Cope, E. D. 1873 O, p. 340.
 1875 D, p. 399.
 1882 B, p. 461.
 Fritsch, A. 1883 A (1879), p. 62.
 Miall, L. C. 1875 A, p. 187.
 Miller, S. A. 1889 A, p. 623.
 Zittel, K. A. 1890 A, p. 378.

***Leptophractus lineolatus* Cope.**

- Cope, E. D. 1877 A, p. 576.
 Coal-measures; Ohio.

***Leptophractus obsoletus* Cope.**

- Cope, E. D. 1873 O, p. 341.
 1875 D, p. 400, pl. xxxviii; pl. xxxix, figs. 1, 2, 3.
 Woodward, A. S. 1891 A, p. 262. (*Sagenodus ohioensis*, in part.)
 Coal-measures; Ohio.

ARCHEGOSAURIDÆ.

References are here given also to the literature of the genus *Archegosaurus*.

- Baur, G. 1886 C. (*Archegosaurus*.)
 1888 C. (*Archegosaurus*.)
 1896 C, p. 662. (*Archegosaurus*.)
 1897 A. (*Archegosaurus*.)
 Cope, E. D. 1882 T. (*Trimerorhachidæ*.)
 1884 P, p. 28. (*Trimerorhachidæ*.)
 1889 R, p. 361. (*Trimerorhachidæ*, *Archegosauridæ*.)
 Cope, E. D. 1891 N, p. 29. (*Trimerorhachidæ*, *Archegosauridæ*.)
 1898 B, p. 45. (*Ganocephali*.)
 Credner, H. 1882 A, p. 231. (*Archegosaurus*.)
 1885 A, p. 718. (*Archegosaurus*.)
 Emery, C. 1897 A. (*Archegosaurus*.)
 Fraas, E. 1889 A. (*Archegosaurus*.)
 Fritsch, A. 1889 B (1885), p. 13. (*Archegosauridæ*.)
 Gadow, H. 1896 A, p. 21. (*Archegosaurus*.)
 Gaudry, A. 1883 A, p. 261. (*Archegosaurus*.)

- Goldfuss, A. 1847 A, p. 3, pls. i-iii. (Archegosaurus.)
 Huxley, T. H. 1863 A, p. 67. (Archegosauria.)
 Jaekel, O. 1896 A, p. 3. (Archegosaurus.)
 1896 B, p. 118. (Archegosaurus.)
 Lydekker, R. 1890 A, p. 177. (Archegosauridae.)
 Maggi, L. 1898 A, figs. 4-6. (Archegosaurus.)
 Meyer, H. 1861 B, (Archegosaurus.)
 1867 A. (Archegosaurus.)
 1858 A. (Archegosaurus.)
 Miall, L. C. 1875 A, p. 166. (Archegosauria.)

- Miall, L. C. 1875 C. (Archegosaurus.)
 Nicholson and Lydekker 1899 A, p. 1029. (Archegosauridae.)
 Owen, R. 1860 A, p. 156. (Archegosaurus.)
 Pictet, F. J. 1853 A, p. 551. (Archegosaurus.)
 Quenstedt, F. A. 1852 A, p. 153. (Archegosaurus.)
 1835 A, p. 245. (Archegosaurus.)
 Woodward, A. S. 1898 B, p. 133. (Archegosaurus.)
 Zittel, K. A. 1890 A, p. 384. (Archegosaurus.)
 It is possible that the name *Trimerorhachida* has priority over Archegosauridae.

TRIMERORHACHIS Cope. Type *T. insignis* Cope.

- Cope, E. D. 1878 B, p. 524.
 Baur, G. 1888 C, p. 6.
 Cope, E. D. 1878 U.
 1878 DD.
 1890 A, p. 54.
 1884 P, p. 32.
 1888 H, p. 298.
 1898 U, p. 915.
 1888 AA, p. 243.

- Gadow, H. 1896 A, p. 21.
 Huikc, J. W. 1888 A, p. 423.
 Lydekker, R. 1890 A, p. 189.
 Miller, S. A. 1889 A, p. 626.
 Nicholson and Lydekker 1899 A, p. 1080.
 Zittel, K. A. 1890 A, p. 389.

Trimerorhachis bilobatus Cope.

- Cope, E. D. 1888 H, p. 629.
 1884 P, p. 32.
 1888 BB, p. 286.
 Permian; Texas.

Trimerorhachis conangulus Cope.

- Cope, E. D. 1896 I, p. 137.
 Permian; Texas.

Trimerorhachis insignis Cope.

- Cope, E. D. 1878 B, p. 524.
 1880 A, p. 54.
 1881 K, p. 163.
 1883 H, p. 630.
 1884 P, p. 32, figs. 3, 4.
 1888 O, p. 466, pl. vi, fig. 1.
 1888 AA, p. 43, fig. 1.
 1888 BB, p. 286.
 Lydekker, R. 1890 A, p. 190, fig. 46.
 Zittel, K. A. 1890 A, p. 389, figs. 379 a-d.
 Permian; Texas.

Trimerorhachis mesops Cope.

- Cope, E. D. 1896 G, p. 454.
 Permian; Texas.

DISSORHOPHUS Cope. Type *D. multicinctus* Cope.

- Cope, E. D. 1896 D.
 Baur, G. 1896 B, p. 569.

Dissorhophus articulatus Cope.

- Cope, E. D. 1896 E, pl. xxi.
 Permian; Texas.

Dissorhophus multicinctus Cope.

- Cope, E. D. 1896 D.
 Permian; Texas.

CRICOTIDÆ.

- Cope, E. D. 1884 P, p. 38.
 1889 R, p. 861.
 1891 N, p. 30.
 1898 B, p. 46.

- Fritsch, A. 1889 B (1885), p. 11. (Diplovertebrida.)
 Lydekker, R. 1890 A, p. 176. (Diplospendylida.)

CRICOTUS Cope. Type *C. heteroclitus* Cope.

- Cope, E. D. 1875 T, p. 406.
 Baur, G. 1888 C, p. 14.
 1896 C, p. 662.
 Cope, E. D. 1878 DD.
 1880 J.
 1880 L, p. 610.
 1884 I, p. 29.
 1884 P, p. 38.
 1885 W.
 1886 O.
 1886 P.
 1888 U, p. 915.

- Cope, E. D. 1888 AA.
 1888 BB, p. 286.
 1888 DD, p. 363.
 Gadow, H. 1896 A, p. 23.
 Hay, O. P. 1895 A, p. 45.
 Lydekker, R. 1890 A, p. 175.
 Maggi, L. 1898 A, fig. 20.
 Miller, S. A. 1889 A, p. 620.
 Williston, S. W. 1897 B, figs. 1-4.
 1898 J, p. 120.
 Woodward, A. S. 1898 B, p. 136.
 Zittel, K. A. 1890 A, p. 394.

Cricotus crassidiscus Cope.Cope, *E. D.* 1884 I, p. 28.

1878 B, p. 522. (C. heteroclitus, in part.)

1884 P, p. 39, text fig. 7, pl. v. (See C. heteroclitus.)

1888 AA, p. 246, fig. 3.

1888 BB, p. 286.

Williston, S. W. 1897 B, p. 54.

1898 J, p. 121.

Zittel, K. A. 1890 A, p. 351, fig. 331; p. 395, fig. 384.

(C. heteroclitus; not of Cope.)

Permian; Texas.

Cricotus gibsoni Cope.Cope, *E. D.* 1877 E, p. 185.

Case, E. C. 1900 A, p. 709, figs. 15a-15c.

Cope, *E. D.* 1881 K, p. 163.

1884 P, p. 39.

1888 BB, p. 286.

Permian; Illinois.

Cricotus heteroclitus Cope.Cope, *E. D.* 1875 T, p. 405.

Case, E. C. 1900 A, p. 708, pl. i, figs. 12a-12d; 13, 14.

Cope, *E. D.* 1877 E, p. 186. (C. discophorus.)

1877 N, p. 63.

1878 B, p. 523. (C. discophorus.)

1881 K, p. 163.

1884 I, p. 29.

1884 P, p. 39, fig. 7 and pl. v. (See C. crassidiscus.)

1888 AA, p. 253, pl. i, figs. 7, 8.

1888 BB, p. 286.

Lydekker, R. 1890 A, p. 176, fig. 42.

Permian; Illinois.

Cricotus hypantricus Cope.Cope, *E. D.* 1884 I, pp. 29, 30.

1888 AA, p. 253, pl. i, figs. 2-6.

1888 BB, p. 286.

Permian; Texas.

Cricotus sp. indet.

Case, E. C. 1900 A, p. 709, pl. v, figs. 18a-16.

Permian; Illinois.

ANTHRACOSAURIDÆ.

Cope, *E. D.* 1875 X, p. 10.

Atthey, T. 1876 A, p. 146, pls. viii-xi. (Anthracosaurus.)

Hancock and Atthey 1899 A, p. 313. (Anthracosaurus.)

Huxley, T. H. 1863 A. (Anthracosaurus.)

Lydekker, R. 1890 A, p. 157.

Miall, L. C. 1875 A, p. 159. (Anthracosaurus.)

Nicholson and Lydekker 1899 A, p. 1063.

Zittel, K. A. 1890 A, p. 398. (Gastrolepidoti.)

Eosaurus Marsh. Type *E. acadianus* Marsh.

Marsh, O. C. 1862 B.

Agassiz, L. 1862 A.

Cope, *E. D.* 1869 M, p. 30.

Fritsch, A. 1883 A (1879), p. 61.

Huxley, T. H. 1863 A, p. 62.

Lydekker, R. 1890 A, p. 166.

Marsh, O. C. 1863 A.

Miall, L. C. 1875 A, p. 136.

Miller, S. A. 1889 A, p. 621.

Nicholson and Lydekker 1899 A, p. 1087.

Zittel, K. A. 1890 A, p. 400.

The position of *Eosaurus* in this family is not at all established.**Eosaurus acadianus** Marsh.

Marsh, O. C. 1862 B, pla. i, il.

Cope, *E. D.* 1869 M, p. 30.

Dawson, J. W. 1863 A, p. 431.

1863 C, p. 440.

1863 D, pp. 275, 283.

1868 A, p. 382, fig. 143.

1878 A, p. 392, fig. 143.

Huxley, T. H. 1863 A, p. 62.

Leale, J. P. 1896 A, pl. dlixii.

Lydekker, R. 1890 A, p. 166.

Marsh, O. C. 1862 A. (No description.)

1863 A.

Miller, S. A. 1889 A, p. 621, fig. 1184.

Coal-measures; Nova Scotia.

ERYOPIDÆ.

Cope, *E. D.* 1882 T.

1882 B, pp. 460, 461.

1884 P, p. 28.

1885 W.

1891 N, p. 29.

Lydekker, R. 1890 A, p. 191.

Nicholson and Lydekker 1899 A, p. 1029.

Eryops Cope. Type *E. megacephalus* Cope.Cope, *E. D.* 1877 E, p. 188.

Baur G. 1888 C, p. 13.

Baur and Case 1899 A, p. 3, footnote.

Broili, F. 1899 A, p. 84.

Cope, *E. D.* 1878 B, p. 15 (Epicordylus, type *E. erythroliticus*); p. 520 (Eryops); p. 521 (Pari-oxya, type *P. ferricollis*); p. 526 (Rhachitonus, type *E. valens*).

- Cope, E. D. 1878 U. (*Rhachitonus*, *Parioxys*, *Epicordylus*.)
 1878 AA. (*Rhachitonus*.)
 1878 DD. (*Epicordylus*.)
 1879 A, p. 34. (*Rhachitonus*.)
 1880 A, pp. 49-51. (*Eryops*, *Rhachitonus*.)
 1880 J.
 1882 T.
 1884 P, p. 33.
 1886 O.
 1886 P.
 1888 AA.
 1888 DD.
 1894 C, p. 789.
 1896 G, p. 439.

Emery C. 1897 A.

Gadow H. 1896 A, p. 21.

Lydekker R. 1890 A, p. 191.

Miller, S. A. 1889 A, p. 622.

Nicholson and Lydekker 1889 A, pp. 1022, 1082.

Seeley, H. G. 1892 A.

Stickler, L. 1899 A, p. 85.

Williston, S. W. 1899 E, p. 185.

Zittel, K. A. 1890 A, p. 392.

***Eryops erythroliticus* Cope.**

- Cope, E. D. 1878 B, p. 515. (*Epicordylus*.)
 1878 U. (*Epicordylus*.)
 1888 AA, p. 253, pl. 1, fig. 2.
 1888 BB, p. 286.
 Permian; Texas.

***Eryops ferricolus* Cope.**

- Cope, E. D. 1878 B, p. 521. (*Parioxys*.)
 1878 U. (*Parioxys*.)
 1881 K, p. 163. (*Parioxys*.)
 1884 P, p. 35.
 1888 BB, p. 286.
 Permian; Texas.

***Eryops megacephalus* Cope.**

- Cope, E. D. 1877 E, p. 183.
 Baur, G. 1897 A, p. 978.
 Broili, F. 1899 A, p. 61, pls. viii-x.
 Cope, E. D. 1878 B, p. 520 (*E. megacephalus*): p. 526 (*Rhachitonus valens*).
 1878 U. (*Rhachitonus valens*.)
 1880 A, p. 51, pls. 1-iv.
 1881 K, p. 163.
 1884 P, p. 29, figs. 5, 6 and pl. iii.
 1888 AA, figs. 2, 6.
 1888 BB, p. 286.
 1888 DD, with plate.
 Dana, J. D. 1896 A, p. 686, fig. 1123.
 Emery, C. 1897 A, p. 102, figs. 1, 3.
 Hulke, J. W. 1888 A, p. 423. (*Rhachitonus valens*.)
 Lydekker, R. 1890 A, p. 191, fig. 47.
 Seeley, H. G. 1892 A, pp. 349, 360.
 Stickler, L. 1899 A, p. 85, pls. xi, xii.
 Williston, S. W. 1899 C, p. 221.
 1899 E, p. 185, pls. xxvii, xxix, xxx.
 Zittel, K. A. 1890 A, p. 393, figs. 382, 383.
 Permian; Texas, Indian Territory.

***Eryops platypus* Cope.**

- Cope, E. D. 1877 A, p. 574. (*Ichthyacanthus*.)
 Baur, G. 1888 C, p. 16. (*Ichthyacanthus*.)
 Cope, E. D. 1886 Z, p. 9. (*Ichthyacanthus*.)
 1888 BB, p. 289, fig. 1. (*Eryops*.)
 Coal-measures; Ohio.

***Eryops reticulatus* Cope.**

- Cope, E. D. 1881 AA, p. 1020.
 1884 P, p. 34.
 1888 BB, p. 286.
 Permian; New Mexico.

ICHTHYCANTHUS Cope. Type *I. ohioensis* Cope.

- Cope, E. D. 1877 A, p. 573.
 Baur, G. 1888 C, p. 16.
 Cope, E. D. 1885 Z, p. 9.
 Miller, S. A. 1889 A, p. 622.
 Nicholson and Lydekker 1889 A, p. 1032.

***Ichthyacanthus ohioensis* Cope.**

- Cope, E. D. 1877 A, p. 573.
 1885 Z, p. 9.
 Coal-measures; Ohio.

ZATRACHYS Cope. Type *Z. serratus* Cope.

- Cope, E. D. 1878 B, p. 523.
 Broili, F. 1899 A, p. 84. (*Zatrachis*.)
 Cope, E. D. 1882 B, p. 461.
 1882 T.
 1884 P, p. 36.
 1888 U.
 1896 D.
 Miller, S. A. 1889 A, p. 627.
 Zittel, K. A. 1890 A, p. 390.

***Zatrachys apicalis* Cope.**

- Cope, E. D. 1881 AA, p. 1020.
 1884 P, p. 36.
 1888 BB, p. 286.
 1896 E, p. 937.
 Permian; New Mexico.

***Zatrachys conchigerus* Cope.**

- Cope, E. D. 1896 G, p. 453.
 Permian; Texas.

***Zatrachys microphthalmus* Cope.**

- Cope, E. D. 1896 G, p. 452.
 Permian; Texas.

***Zatrachys serratus* Cope.**

- Cope, E. D. 1878 B, p. 523.
 1881 K, p. 163.
 1884 P, p. 36.
 1888 O, p. 466, pl. vi, fig. 2.
 1888 BB, pp. 286, 289.
 Permian; Texas.

ANISODEXIS Cope. Type *A. imbricarius* Cope.

Cope, E. D. 1882 B, p. 459.
Broili, F. 1899 A, p. 84.
Cope, E. D. 1884 P, p. 36.
Miller, S. A. 1889 A, p. 618.
Zittel, K. A. 1890 A, p. 398.

***Anisodexis enchodus* Cope.**

Cope, E. D. 1885 B, p. 406.

Cope, E. D. 1897 C, p. 88.
 Coal-measures; Ohio.

***Anisodexis imbricarius* Cope.**

Cope, E. D. 1882 B, p. 459.
 1884 P, p. 36.
 1888 BB, p. 286.
 Permian; Texas.

ACHELOMA Cope. Type *A. cumminsi* Cope.

Cope, E. D. 1882 B, p. 455.
Broili, F. 1899 A, p. 84.
Cope, E. D. 1884 P, p. 35.
Miller, S. A. 1889 A, p. 617.
Zittel, K. A. 1890 A, p. 398.

***Acheloma cumminsi* Cope.**

Cope, E. D. 1882 B, p. 466.
 1884 P, p. 35.
 1888 BB, p. 286.
 Permian; Texas.

MASTODONSAURIDÆ.

Huxley, T. H. 1863 A, p. 66. (Mastodonsauria.)
Lydekker, R. 1890 A, p. 141.
Miall, L. C. 1875 A, p. 149.

Quenstedt, F. A. 1850 B. ("Mastodonsaurier.")
 1885 A, p. 240. (Mastodonsauri.)
Zittel, K. A. 1890 A, p. 401. (Labyrinthodonta.)

MASTODONSAURUS Jaeger. Type *Salamandroides giganteus* Jaeger.

Jaeger, G. F. 1823 A, p. 35.
Cope, E. D. 1898 B, p. 57, pl. i, fig. 1.
Fraas, E. 1889 A, p. 32.
Huxley, T. H. 1863 A, p. 65.
Jaekel, O. 1896 A, p. 5.
Lydekker, R. 1890 A, p. 142.
Maggi, L. 1898 A, figs. 11, 23.
Miall, L. C. 1875 A, p. 151.
Owen, R. 1841 D, p. 5.
 1842 B. (Labyrinthodon.)
 1842 C. (Labyrinthodon.)

Pictet, F. J. 1853 A, p. 547.
Quenstedt, F. A. 1850 B.
 1852 A, p. 148.
 1885 A, p. 240.
Woodward, A. S. 1898 B, p. 137.
Zittel, K. A. 1890 A, p. 404.

***Mastodonsaurus* sp. indet.**

Williston, S. W. 1897 G, pl. xxi.
 Carboniferous; Kansas.

EUPELOR Cope. Type *Mastodonsaurus durus* Cope.

Cope, E. D. 1868 J, p. 221.
 1893 A, p. 12.
Fritsch, A. 1883 A (1879), p. 62.
Miall, L. C. 1875 A, p. 186.
Zittel, K. A. 1890 A, p. 408.

***Eupelor durus* Cope.**

Cope, E. D. 1866 D, p. 250. (Mastodonsaurus.)

Cope, E. D. 1868 J, p. 221.
 1869 M, p. 25.
 1887 A, p. 209.
Fritsch, A. 1883 A (1879), p. 62.
Miall, L. C. 1875 A, p. 186.
 Triassic; Pennsylvania.

PARIOSTEGUS Cope. Type *P. myops* Cope.

Cope, E. D. 1868 J, p. 211.
 1869 M, p. 10.
Fritsch, A. 1883 A (1879), p. 64.
Miall, L. C. 1875 A, p. 189.
Zittel, K. A. 1890 A, p. 189.

***Pariostegus myops* Cope.**

Cope, E. D. 1868 J, p. 212.
 1869 M, p. 11.
 1875 V, p. 32.
 Triassic; North Carolina.

DICTYOCEPHALUS Leidy. Type *D. elegans* Leidy.

Leidy, J. 1856 L, p. 256.
 1857 A, p. 272.
Miall, L. C. 1875 A, p. 185.
Zittel, K. A. 1890 A, p. 408.

***Dictyocephalus elegans* Leidy.**

Leidy, J. 1856 L, p. 256.
Cope, E. D. 1868 J, p. 221.
 1869 M, p. 25.

Cope, E. D. 1875 V, p. 32.
Emmons E. 1856 A, p. 347. (No name.)
 1857 A, p. 59, figs. 31, 32.
 1858 A, p. 78.
 1860 A, p. 184, fig. 162.
Fritsch, A. 1883 A (1879), p. 61.
Leidy, J. 1837 A, p. 272.
 Triassic (Chatham); North Carolina.

Order URODELA.

Baur, G. 1888 C, pp. 36-62.
 Boulenger, G. A., 1882 A.
 Cope, E. D. 1866 F, p. 97.
 1869 M, p. 5.
 1871 B.
 1875 D, p. 352.
 1888 H, p. 299.
 1888 O.
 1888 R.
 1889 D, p. 29.
 1891 N, pp. 28, 31.
 1896 B, p. 48.
 Emery, C. 1897 B.
 Gadow, H. 1889 A, p. 459.
 1896 A, p. 2.
 1898 A, p. 13.
 Gegenbaur, C. 1864 A.
 1865 B, p. 66.
 1896 A.
 Goeppert, E. 1895 B.
 1896 A, p. 398.
 Haeckel, E. 1895 A, p. 279.
 Hassé, C. 1893 A.
 Hay, O. P. 1895 A, p. 46.
 1896 B, p. 959.
 1899 F, p. 682.

Hoffmann, C. K. 1874 A.
 1878 A.
 Howes, G. B. 1888 A.
 Huxley, T. H. 1872 A.
 1874 A.
 1875 A.
 1875 C.
 Kehner, F. A. 1876 A.
 Mivart, St. G. 1870 A.
 Parker, W. K. 1868 A, p. 58.
 1879 B, pp. 31, 61.
 1881 A, p. 262.
 1882 C.
 1882 D.
 Peters, K. 1895 A.
 Pollard, H. B. 1892 A, p. 420.
 Riese H. 1892 A.
 Stannius, H. 1856 A.
 Walter, F. 1887 A.
 Wiedersheim, R. 1876 A.
 1877 A.
 1880 A.
 1889 A, p. 482.
 Zittel, K. A. 1890 A, p. 412.
 Zwick, W. 1897 A.

GENERA INCERTÆ SEDIS.

SCAPHERPETON Cope. Type *S. tectum* Cope.

Cope, E. D. 1876 I, p. 353.
 1882 J, p. 979.
 1884 O, p. 100.
 Zittel, K. A. 1890 A, p. 420.

Scapherpeton excisum Cope.

Cope, E. D. 1876 I, p. 357.
 1877 G, p. 574.
 Cretaceous (Laramie); Montana.

Scapherpeton favosum Cope.

Cope, E. D. 1876 I, p. 357.

Cope, E. D. 1877 G, p. 574.
 Cretaceous (Laramie); Montana.
Scapherpeton laticolle Cope.
 Cope, E. D. 1876 I, p. 356.
 1877 G, p. 573.
 Cretaceous (Laramie); Montana.
Scapherpeton tectum Cope.
 Cope, E. D. 1876 I, p. 355.
 1877 G, p. 573.
 Cretaceous (Laramie); Montana.

HEMITRYPUS Cope. Type *H. jordanianus* Cope.

Cope, E. D. 1876 I, p. 358.
 1882 J, p. 979.
 1884 O, p. 100.
 Zittel, K. A. 1890 A, p. 420.

Hemitrypus jordanianus Cope.

Cope, E. D. 1876 I, p. 358.
 1877 G, p. 574.
 1882 J, p. 979.
 Cretaceous (Laramie); Montana.

Order SALIENTIA Laurenti.

Laurenti, J. N., 1768, Synop. Rept., p. 24.

This group is usually denominated *Anura*, and this term is employed by the following writers unless otherwise indicated. *Salientia* has priority and is unobjectionable.

Born, G. 1880 A, p. 51.
 Boulenger, G. A. 1882 B. (*Batrachia salientia*.)

Cope, E. D. 1866 F.
 1868 J, p. 209.
 1869 M, p. 6.
 1875 D, pp. 352, 354.
 1888 H, p. 301. (*Salientia*.)
 1889 D, p. 232. (*Salientia*.)
 1889 R, p. 861. (*Salientia*.)

Gadow, H. 1889 A, p. 461.
 1896 A, p. 15.
 1898 A, p. 14.
 Gaupp, E. 1896 A.
 Gegenbaur, C. 1864 A.
 1865 B, p. 52.
 1896 A.
 Goepfert, E. 1896 A, p. 427.
 Haeckel, E. 1896 A, p. 261. (Batrachia.)
 Hay, O. P. 1899 F, p. 682.
 Hoffmann, C. K. 1874 A. (Ecaudata.)
 Howes, G. B. 1888 B.
 Huxley, T. H. 1872 A.
 1875 C.
 Leydig, F. 1876 A.

Meyer, H. 1845 A, p. 18.
 Müller, J. 1831 A, p. 209. (Batrachia.)
 Nicholson and Lydekker 1889 A, p. 1042. (Ecaudata.)
 Parker, W. K. 1868 A, p. 66. (Amphibia anoura.)
 1871 A.
 1877 A. (Batrachia.)
 1879 B, p. 31.
 1881 A.
 Perrin, A. 1896 A.
 Peters, K. 1896 A.
 Stannius, H. 1856 A. (Batrachia.)
 Wiedersheim, R. 1889 A, p. 435.
 Zittel, K. A. 1890 A, p. 421.
 Zwick, W. 1897 A.

RANIDÆ.

Boulenger, G. A. 1882 B, p. 3.
 Cope, E. D. 1871 B.
 1889 D, p. 390.
 Hoffmann, C. K. 1874 A.
 Meyer, H. 1860 B.

Parker, W. K. 1871 A.
 1881 A.
 Stannius, H. 1856 A. (Ranina.)
 Zittel, K. A. 1890 A, p. 428.

RANA Linn. Type *R. temporaria* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. x, p. 210.
 Boulenger, G. A. 1882 B, 6.
 Cope, E. D. 1889 D, p. 393.
 Hoffmann, C. K. 1874 A.
 Parker, W. K. 1881 A.

Zittel, K. A. 1890 A, p. 428.
***Rana* sp. indet.**
 Wheatley, C. 1871 B.
 Pleistocene; Pennsylvania.

EOBATRACHUS Marsh. Type *E. agilis* Marsh.

Marsh, O. C. 1887 A, p. 328. (No definition.)

***Eobatrachus agilis* Marsh.**
Marsh, O. C. 1887 A, p. 328. (No description.)
 1897 C, p. 508. (No description.)
 Jurassic; Wyoming.

Class REPTILIA.

Baur, G. 1885 E.
 1896 B.
 1896 H.
 1892 D, p. 211.
 1896 A.
 1895 D.
 1895 E.
 1896 A.
 Bemmelen, J. F. 1899 A, p. 162.
 Boulenger, G. A. 1886 A. (Lacertilia.)
 1887 A. (Lacertilia.)
 1889 A. (Testudinata, Crocodilia.)
 1893 A. (Ophidia.)
 1894 A. (Ophidia.)
 1896 C. (Ophidia.)
 Burckhardt, R. 1895 A.
 Calori L. 1894 A.
 Case, E. C. 1898 A.
 Cope, E. D. 1864 A.
 1869 M, pp. 3, 26.
 1871 B.
 1895 G.
 1887 B, p. 333.
 1888 AA.

Cope, E. D. 1889 R, p. 363.
 1891 N, p. 35.
 1892 N.
 1892 R.
 1896 B, p. 52.
 1900 A, p. 159.
 Credner, H. 1888 A.
 Cuvier, G. 1834 A, ix, pp. 1-24.
 Fürbringer, M. 1885 B.
 Gadow, H. 1896 A, p. 23.
 1896 A, p. 17.
 Gaupp, E. 1891 A.
 1895 B.
 1900 A.
 Gegenbaur, C. 1864 A.
 1865 B, p. 24.
 1896 A.
 Günther, A. 1886 A.
 Haeckel, E. 1895 A, p. 291.
 Hallmann, E. 1837 A, pp. 16, 29.
 Hoffmann, C. K. 1876 A.
 1878 A.
 Humphrey, G. M. 1866 A.

Huxley, T. H. 1867 A, p. 415.

1868 A.

1870 A.

1872 A, p. 167.

1876 B, xiii pp. 429, 514.

Kehner, F. A. 1876 A.

Kehrer, G. 1886 A, p. 73.

Kingsley and Ruddick 1900 A, p. 219.

Köstlin, O. 1844 A.

Ledy, J. 1865 A.

Levy, H. 1898 A.

Lydekker, R. 1888 B.

1889 F.

1889 G.

1890 A.

Männer, H. 1899 A, p. 43.

Marsh, O. C. 1877 E.

Meyer, H. 1845 A.

1855 A.

1856 B.

1860 D.

Mivart, St. G. 1886 A.

Nicholson and Lydekker 1899 A, p. 1047.

Osborn, H. F. 1899 I, p. 156.

1900 J, p. 943.

Owen, R. 1840 A.

1842 A.

1845 B, p. 179.

1847 B, p. 233.

1860 A.

Parker, W. K. 1868 A, p. 90.

1880 A.

Pictet, F. J. 1858 A, p. 422

Rüce, C. 1895 A.

Seeley, H. G. 1888 H.

1898 A, p. 357.

Segond, L. A. 1873 A, pp. 1, 24.

Sixta, V. 1890 A.

Stannius, H. 1856 A. (*Amphibia monopnoea*.)

Walter, F. 1887 A.

Wiedersheim, R. 1889 A, p. 437.

Woodward, H. 1874 A.

1874 B.

1898 B, p. 140.

Zittel, K. A. 1890 A, pp. 437, 801.

Order COTYLOSAURIA Cope.

Cope, E. D. 1880 H.

Baur, G. 1885 J. (<Theromorpha.)

1887 A. (<Theromorpha.)

1887 C, p. 102. (<Theromorpha.)

1891 C, p. 354. (<Theromora.)

1896 B, p. 569.

Baur and Case 1897 A. (<Pareiasauria.)

Burckhardt, R. 1895 A. (<Theromorpha.)

Case, E. C. 1898 A, pp. 70, 73. (<Pareiasauria.)

1898 B, p. 517.

1899 A, p. 244.

Cope, E. D. 1878 CC. (<Theromorpha.)

1880 A. (<Theromorpha.)

1882 B, p. 448.

1885 A. (<Theromorpha.)

1885 G, p. 246. (<Theromorpha.)

1887 S, p. 333. (<Theromorpha.)

1889 R, p. 866. (<Theromora.)

1891 F, p. 645.

1891 N, p. 38.

1891 Z, p. 13.

1894 C.

1896 C.

1898 D.

1896 G.

Cope, E. D. 1896 I.

1898 B, pp. 54, 60.

1900 A, p. 159. (Cotylosauria, Theromora.)

Fürbringer, M. 1900 A, pp. 338, 534, 562, 639, 674.

(Theromorpha.)

Günther, A. 1886 A, p. 442. (<Anomodontia.)

Haeckel, E. 1895 A, p. 306. (<Theromora.)

Hay, O. P. 1899 F, p. 682.

Kükenthal, W. 1892 A. (<Theromorpha.)

Lydekker, R. 1890 A, p. 112. (<Anomodontia, Pariasauria.)

Osborn, H. F. 1898 B. (<Theromora.)

1899 B, p. 95.

Seeley, H. G. 1889 A, p. 238. (<Pareiasauria.)

1892 A. (<Pareiasauria.)

1895 A, p. 998. (Pareiasauria.)

Steinmann and Döderlein 1890 A, p. 622. (<Theromorpha.)

Woodward, A. S. 1898 B, p. 145. (Pariasauria, part.)

Zittel, K. A. 1890 A, p. 553 (<Theromorpha); p. 570 (Pariasauria).

The *Pariasauria* are a related but probably distinct group.

DIADECTIDÆ.

Cope, E. D. 1880 A, p. 45.

Baur and Case 1899 A.

Cope, E. D. 1880 H.

1882 B, p. 448.

1888 K, p. 106.

1886 A.

1888 U.

1888 BB, p. 238.

Cope, E. D. 1896 G, pp. 439, 441.

1896 I, p. 130.

1898 B, p. 60.

Lydekker, R. 1890 A, p. 100.

Marsh, O. C. 1878 C, p. 410. (Nothodontidæ.¹)

Nicholson and Lydekker 1899 A, p. 1061.

Zittel, K. A. 1890 A, p. 581.

¹ This family is assigned to the *Diadectidæ* on the authority of Drs. Baur and Case, as above cited.

DIADECTES Cope. Type *D. sideropelicus* Cope.

Cope, E. D. 1878 B, p. 505.
1878 U.

1880 A, p. 45.

1880 H.

1888 U, p. 916, pl. xvi.

1896 G, p. 441.

1896 I, pp. 131, 133.

Miller, S. A. 1899 A, p. 620.

Zittel, K. A. 1890 A, p. 562.

***Diadectes biculminatus* Cope.**

Cope, E. D. 1896 I, p. 132, text fig. 3.

1878 B, p. 505. ("No. 2" of *D. sideropelicus*.)

Permian; Texas.

***Diadectes latibuccatus* Cope.**

Cope, E. D. 1878 B, p. 505.

1880 H.

1881 K, p. 163. (*Empedocles*.)

1883 H, p. 634. (*Empedias*.)

1888 BB, p. 288. (*Empedias*.)

1896 G, p. 442. (*Empedias*.)

Cope, E. D. 1896 I, p. 131.

Permian; Texas.

***Diadectes phaseolinus* Cope.**

Cope, E. D. 1880 A, p. 46.

1881 K, p. 163.

1883 H, p. 634. (*Empedias*.)

1886 A.

1888 U, p. 916, pl. xvi, fig. 3.

1888 BB, p. 288. (*Empedias*.)

1896 G, p. 442. (*Empedias*.)

1896 I, p. 132, text fig. 2.

Permian; Texas.

***Diadectes sideropelicus* Cope.**

Cope, E. D. 1878 B, p. 505.

1878 U.

1881 K, p. 164.

1888 BB, p. 288.

1896 I, p. 133.

Lydekker, R. 1890 A, p. 104.

Permian; Texas.

EMPEDIAS Cope. Type *E. alatus* Cope.

Cope, E. D. 1883 H, p. 634. (To replace *Empedocles*, preoccupied.)

Baur, G. 1897 B, p. 150.

Cope, E. D. 1878 B, pp. 516, 529. (*Empedocles*.)

1878 U.

1880 A, p. 46. (*Empedocles*.)

1880 H. (*Empedocles*.)

1896 G, p. 441.

1896 I, p. 131.

Lydekker, R. 1890 A, p. 101.

Miller, S. A. 1899 A, p. 621.

Seeley, H. G. 1888 H, p. 137.

1889 A, p. 234.

1896 A, p. 1009.

Steinmann and Döderlein 1890 A, p. 623. (*Empedocles*.)

Zittel, K. A. 1890 A, p. 561.

***Empedias alatus* Cope.**

Cope, E. D. 1878 B, p. 517. (*Empedocles*.)

1878 U. (*Empedocles*.)

1881 K, p. 164. (*Empedocles*.)

1888 BB, p. 288.

Permian; Texas.

This species is not included by Professor Cope in either the list contained in Cope 1896 G, or in that of Cope 1896 I.

***Empedias fissus* Cope.**

Cope, E. D. 1883 H, p. 634.

1888 BB, p. 288.

1896 G, p. 442.

1896 I, p. 132, text fig. 4.

Permian; Texas.

***Empedias molaris* Cope.**

Cope, E. D. 1878 Z. (*Diadectes*.)

1880 A, p. 47. (*Empedocles*.)

1880 H. (*Empedocles*.)

1881 K, p. 164. (*Empedocles*.)

1883 H, p. 634.

1886 A. (*Empedias*.)

1888 BB, p. 288.

1891 N, p. 38, fig. 17.

1896 G, p. 442.

1896 I, p. 131.

Kükenthal, W. 1892 A.

Lydekker, R. 1890 A, p. 102, figs. 20-22.

Seeley, H. G. 1888 H, p. 138, fig. 5.

Wortman, J. L. 1896 A, p. 383.

Zittel, K. A. 1890 A, p. 561, fig. 524.

Permian; Texas.

BOLBODON Cope. Type *B. tenuitactus* Cope.

Cope, E. D. 1896 I, p. 134.

***Bolbodon tenuitactus* Cope.**

Cope, E. D. 1896 I, p. 134, text fig. 1.

Permian; Texas.

CHILONYX Cope. Type *Bolosaurus rapidens* Cope.

Cope, E. D. 1888 H, p. 631.

Baur, G. 1897 B, p. 150.

Cope, E. D. 1888 F.

Cope, E. D. 1892 Z, p. 13.

1896 G, p. 441.

1896 I, p. 131.

Cope, E. D. 1898 B, p. 57, pl. i, fig. 2.
 Lydekker, R. 1890 A, pp. 67, 96, 111.
 Miller, S. A. 1889 A, p. 619.
 Seeley, H. G. 1896 A, p. 1009.
 Zittel, K. A. 1890 A, p. 582.

***Chilonyx rapidens* Cope.**

Cope, E. D. 1878 B, p. 507. (*Bolosaurus*.)

Cope, E. D. 1888 H, p. 631.

1883 P.

1888 BB, p. 288.

1892 Z, p. 25, pl. i, fig. 2.

1894 B, pl. x, fig. 2.

1896 G, p. 442, pl. viii, fig. 6.

1896 I, p. 131.

Permian; Texas.

NOTHODON Marsh. Type *N. lentus* Marsh.

Marsh, O. C. 1878 C, p. 410.

Baur and Case 1899 A, p. 4.

Credner, H. 1888 A, p. 556.

Zittel, K. A. 1890 A, p. 574.

***Nothodon lentus* Marsh.**

Marsh, O. C. 1878 C, p. 410.

Baur and Case 1899 A, p. 4.

Permian; New Mexico.

PARIOTICHIDÆ.

Cope, E. D. 1883 H, p. 631.

Case, E. C. 1899 A, p. 238.

Cope, E. D. 1888 BB, p. 287.

1896 G, pp. 439, 442.

Lydekker, R. 1890 A, p. 112.

Nicholson and Lydekker 1889 A, p. 1056.

Zittel, K. A. 1890 A, p. 560.

PARIOTICHUS Cope. Type *P. brachyops* Cope.

Cope, E. D. 1878 B, pp. 508, 529.

Baur, G. 1897 B, p. 150.

Case, E. C. 1899 A, p. 231.

Cope, E. D. 1878 B, pp. 508, 529. (*Ectocynodon*,
 type *E. ordinatus* Cope.)

1879 A, p. 34.

1882 B, p. 450. (*Ectocynodon*.)

1883 H, p. 631. (*Pariotichus*, *Ectocynodon*.)

1892 Z, p. 14.

1896 C.

1896 G, p. 443.

1898 B, p. 57, fig. 3.

Miller, S. A. 1889 A, p. 621 (*Ectocynodon*); p. 624
 (*Pariotichus*).

Nicholson and Lydekker 1889 A, p. 1056. (*Parioti-*
chus, *Ectocynodon*.)

Seeley, H. G. 1896 A, p. 998.

Zittel, K. A. 1890 A, p. 581. (*Pariotichus*, *Ecto-*
cynodon.)

***Pariotichus aduncus* Cope.**

Cope, E. D. 1896 I, p. 135.

Permian; Texas.

***Pariotichus aguti* Cope.**

Cope, E. D. 1882 B, p. 451. (*Ectocynodon*.)

1888 BB, p. 287. (*Ectocynodon*.)

1896 C, pl. vii, a.

Cope, E. D. 1896 G, pp. 444, 445, pl. vii.
 Permian; Texas.

***Pariotichus brachyops* Cope.**

Cope, E. D. 1878 B, p. 508.

1881 K, p. 163.

1888 BB, p. 287.

1896 G, p. 445.

Permian; Texas.

***Pariotichus incisivus* Cope.**

Cope, E. D. 1888 BB, p. 290. (*Ectocynodon*.)

Case, E. C. 1899 A, p. 231, figs. 1-7.

1900 A, p. 720.

Cope, E. D. 1896 G, p. 445.

Permian; Texas.

***Pariotichus isolomus* Cope.**

Cope, E. D. 1896 G, pp. 445, 446.

Permian; Texas.

***Pariotichus ordinatus* Cope.**

Cope, E. D. 1878 B, p. 508. (*Ectocynodon*.)

1881 K, p. 163. (*Ectocynodon*.)

1888 BB, p. 287. (*Ectocynodon*.)

1896 G, pp. 446, 447.

Permian; Texas.

ISOECTES Cope. Type *Pariotichus megalops* Cope.

Cope, E. D. 1896 G, p. 442.

To this genus Cope has also referred *Tudit-*
itanus punctulatus, which, however, has here
 been retained under *Tudititanus*.

***Isodectes megalops* Cope.**

Cope, E. D. 1888 H, p. 630. (*Pariotichus*.)

Cope, E. D. 1888 BB, p. 287. (*Pariotichus*.)

1892 Z, p. 25, pl. i, fig. 3. (*Pariotichus*.)

1894 B, pl. x, fig. 3. (*Pariotichus*.)

1896 G, p. 442.

Permian; Texas.

CAPTORHINUS Cope. Type *C. angusticeps* Cope.

Cope, E. D. 1896 G, p. 443.

Captorhinus angusticeps Cope.Cope, E. D. 1896 G, p. 443.
Permian; Texas.**PANTYLUS** Cope. Type *P. cordatus* Cope.

Cope, E. D. 1881 A, p. 79.

Baur, G. 1897 B, p. 150.

Cope, E. D. 1882 HH.

1883 H, p. 681.

1892 Z, p. 14.

1896 G, pp. 442, 449.

1896 B, p. 57, fig. 4.

Miller, S. A. 1889 A, p. 624.

Seeley, H. G. 1896 A, p. 998.

Zittel, K. A. 1890 A, p. 581.

Pantylus colcodus Cope.Cope, E. D. 1896 G, p. 450.
Permian; Texas.**Pantylus cordatus** Cope.

Cope, E. D. 1881 A, p. 79.

1881 K, p. 163.

1888 BB, p. 287.

1892 Z, p. 25, pl. i, fig. 4.

1894 B, pl. x, fig. 4.

1896 G, p. 449.

Permian; Texas.

HYPOPNOUTS Cope. Type *H. squaliceps* Cope.

Cope, E. D. 1896 G, p. 450.

Hypopnouts squaliceps Cope.Cope, E. D. 1896 G, p. 451, pl. viii, figs. 3-5.
Permian; Texas.**HELODECTES** Cope. Type *H. paridens* Cope.

Cope, E. D. 1880 A, pp. 45, 48.

1896 G, p. 442.

Miller, S. A. 1889 A, p. 622.

Zittel, K. A. 1890 A, p. 582.

Helodectes isaaci Cope.

Cope, E. D. 1880 A, p. 49.

1881 K, p. 164.

Cope, E. D. 1888 BB, p. 288.

Permian; Texas.

Helodectes paridens Cope.

Cope, E. D. 1880 A, p. 48.

1881 K, p. 164.

1888 BB, p. 288.

Permian; Texas.

PAREIASAURIDÆ.

Cope, E. D. 1896 G, pp. 437, 439.

1896 I, p. 137.

Haeckel, E. 1896 A, p. 308. (Pareosaurida.)

Lydekker, R. 1890 A, p. 112.

Seeley, H. G. 1888 D. (Pareiasaurus.)

1889 A. (Pareiasaurus.)

1892 A. (Pareiasaurus.)

LABIDOSAURUS Cope. Type *Pariotichus hamatus* Cope.

Cope, E. D. 1896 I, p. 136.

Baur, G. 1897 B, p. 150.

Labidosaurus hamatus Cope.

Cope, E. D. 1896 G, p. 448, pl. viii, figs. 1, 2. (Pariotichus.)

1896 I, p. 136.

Permian; Texas.

Order CHELYDOSAURIA Cope.

Cope, E. D. 1896 B, pp. 54, 61.

Hay, O. P. 1899 F, p. 682.

OTOCCELIDÆ.

Cope, E. D. 1896 D.

Baur, G. 1896 B, p. 503.

Cope, E. D. 1896 I, p. 123.

Otocelus Cope. Type *O. testudineus* Cope.*Cope, E. D. 1896 D.**Baur, G. 1896 B, p. 569.*

1897 B, p. 150.

Cope, E. D. 1896 I, p. 123.

1897 A, p. 315.

*Woodward, A. S. 1896 B, p. 149.***Otocelus mimeticus** Cope.*Cope, E. D. 1896 I, p. 123, pl. ix, fig. 1.**Cope, E. D. 1896 E, pl. xxii, fig. 11. (No description; called on plate *O. testudineus*.)*
Permian; Texas.**Otocelus testudineus** Cope.*Cope, E. D. 1896 D.*

1896 E, pl. xxi, fig. 2.

1896 I, p. 124, pls. vii, viii; pl. ix, fig. 2.
Permian; Texas.**Conodectes** Cope. Type *C. favosus* Cope.*Cope, E. D. 1896 D.**Baur, G. 1896 B, p. 569.**Cope, E. D. 1896 I, pp. 124, 129.***Conodectes favosus** Cope.*Cope, E. D. 1896 D.*

1896 I, p. 129.

Permian; Texas.

Order ANOMODONTIA Owen.

*Owen, R. 1860 A, p. 255.**Cope, E. D. 1878 CC, p. 829.*

1890 A, p. 38.

1889 R, p. 865.

*Fürbringer, M. 1900 A.**Gadow, H. 1898 A, p. 18.**Haeckel, E. 1895 A, p. 314.**Hay, O. P. 1899 F, p. 682.**Lydekker, R. 1890 A, p. 10.**Osborn, H. F. 1898 O, p. 358.*

1900 J, p. 945.

*Owen, R. 1881 C, p. 266.**Quenstedt, F. A. 1885 A, p. 218.**Seeley, H. G. 1888 D, p. 101.*

1898 F.

1899 A.

1898 A, p. 307.

1900 A, p. 620.

Woodward, A. S. 1896 B, p. 144, in part: p. 157
(Dicynodontia.)*Zittel, K. A. 1890 A, p. 556.*

DICYNODONTIDÆ.

*Cope, E. D. 1889 R, p. 865.**Huxley, T. H. 1859 C. ("Dicynodonta.")**Lydekker, R. 1890 A, p. 16.**Osborn, H. F. 1898 B. (Dicynodontia.)***Dicynodon** Owen. Type *D. lacerticeps* Owen.*Owen, R., 1845, Quart. Jour. Geol. Soc., 1, p. 318.**Hulke, J. W. 1892 A, p. 244, figs. 6, 7.**Huxley, T. H. 1859 C.**Lydekker, R. 1890 A, p. 16.**Osborn, H. F. 1898 R, p. 316.**Owen, R. 1845 D.*

1856 D.

1856 E.

1860 F.

1863 A.

*Quenstedt, F. A. 1885 A, p. 218.**Zittel, K. A. 1890 A, p. 564.***Dicynodon rosmarus** Cope.*Cope, E. D. 1869 M, p. 232.*

1870 I, p. 445.

An unsatisfactorily described species; its generic identity doubtful.

Triassic; Pennsylvania.

Order PELYCOSAURIA Cope.

*Cope, E. D. 1878 B, p. 528.**Baur, G. 1885 E, p. 637.*

1886 M, p. 302.

1887 A, p. 488.

1887 C, p. 102. (As part of Theromorpha.)

1897 A, p. 977.

Baur and Case 1897 A.

1899 A.

*Case, E. C. 1898 A, pp. 70, 73.**Cope, E. D. 1878 CC. (As part of Theromorpha.)*

1890 A. (As part of Theromorpha.)

1890 J.

Cope, E. D. 1882 B, p. 448.

1884 I, pp. 88, 43.

1885 A.

1885 G. (Theromorpha, part.)

1885 V.

1886 O.

1888 U, p. 915.

1888 AA, p. 244.

1889 R, p. 866. (As part of Theromorpha.)

1891 F, p. 645. (Theriodontia.)

1891 N, p. 38. (Theriodontia.)

1892 R.

- Cope, E. D. 1894 C.
 1897 A, p. 316.
 1898 B, pp. 55, 67.
 Fürbringer, M. 1888 A.
 1900 A.
 Gadow, H. 1898 A, p. 18. (Theriodontia.)
 Haeckel, E. 1896 A, p. 308.
 Hay, O. P. 1899 F, p. 68.
 Lydekker, R. 1890 A, p. 66. (Theriodontia.)
 Marsh, O. C. 1898 B, p. 407. (Theriodontia.)
 Nicholson and Lydekker 1889 A, p. 1067. (Theriodontia.)

- Osborn, H. F. 1896 A, p. 147. (Theriodontia.)
 1898 B, p. 177.
 1898 R, p. 815. (Theriodontia.)
 1899 B, p. 96. (Theriodontia.)
 Owen, R. 1876 B. (Theriodontia.)
 1881 B. (Theriodontia.)
 1881 C. (Theriodontia.)
 Seeley, H. G. 1889 A, p. 282.
 1896 A, p. 1007.
 Steinmann and Döderlein 1890 A, p. 622.
 Woodward, A. S. 1898 B, p. 186.
 Zittel, K. A. 1890 A, pp. 564, 572.

CLEPSYDROPIDÆ.

- Cope, E. D. 1884 I, p. 38.
 Baur and Case, 1899 A.
 Cope, E. D. 1882 B, p. 460. (Edaphosauridæ.)
 1883 H, p. 631. (Edaphosauridæ.)
 1885 A, p. 477.
 1888 BB, p. 287.
 1898 B, p. 67.
 Fürbringer, M. 1900 A.

- Lydekker, R. 1890 A, p. 104.
 Marsh, O. C. 1878 C, p. 410. (Sphenacodontidæ.)
 Nicholson and Lydekker 1889 A, p. 1069.
 Zittel, K. A. 1890 A, p. 574. (Cynodontia.)
 The family *Sphenacodontidæ* proposed by Professor Marsh, is assigned to the *Clepsydroptidæ* on the authority of Drs. Baur and Case, as cited above.

CLEPSYDROPS Cope. Type *C. collettii* Cope.

- Cope, E. D. 1875 T, p. 407.
 Baur and Case 1897 A.
 1899 A.
 Case, E. C. 1900 A, p. 711.
 Cope, E. D. 1878 B, pp. 510, 529.
 1878 J.
 1878 U.
 1878 DD.
 1879 A, p. 34.
 1881 K, p. 163.
 1885 A.
 1886 O.
 1888 O.
 1888 AA.
 1892 Z, p. 11 (Diopous, type *C. leptoccephalus*);
 p. 14 (Clepsydrops).
 Kingsley and Ruddick 1900 A, p. 229.
 Lydekker, R. 1890 A, p. 106.
 Miller, S. A. 1889 A, p. 619.
 Nicholson and Lydekker 1889 A, p. 1069.
 Seeley, H. G. 1889 A, pp. 284, 288.
 1896 A, p. 998.
 1896 B, pp. 111, 119.
 Zittel, K. A. 1890 A, p. 574.

Clepsydrops collettii Cope.

- Cope, E. D. 1875 T, p. 407.
 Baur and Case 1899 A, p. 1.
 Case, E. C. 1900 A, pp. 711, 720, pl. ii, figs. 1a-3b;
 pl. iv, figs. 7a-7d.
 Cope, E. D. 1877 F, p. 196.
 1877 N, p. 61.
 1881 K, p. 163.
 1884 I, p. 38.
 1888 BB, p. 287.
 Williston, S. W. 1898 J, p. 121.
 Permian; Illinois, Kansas?

Clepsydrops leptoccephalus Cope.

- Cope, E. D. 1884 I, p. 30, pl. 1, figs. 1-5.

- Baur and Case 1897 A, p. 116.
 1899 A, p. 13.
 Case, E. C. 1900 A, p. 720.
 Cope, E. D. 1884 EE, pl. xxxviii, figs. 1, 2.
 1884 GG, p. 1258.
 1885 A, figs. 1, 2.
 1885 V.
 1888 BB, p. 287.
 1892 Z, p. 11, pl. ii, figs. 6, 8. (Diopous.)
 1897 A, p. 318. (Diopous.)
 Zittel, K. A. 1890 A, p. 574.
 Permian; Texas.

Clepsydrops limbatus Cope.

- Cope, E. D. 1877 F, p. 196.
 Baur and Case 1899 A, p. 3.
 Cope, E. D. 1878 B, p. 515. (Embolophorus?)
 1880 Q.
 Permian; Texas.

Clepsydrops macrospondylus Cope.

- Cope, E. D. 1884 I, p. 35.
 Baur and Case 1899 A, p. 14.
 Cope, E. D. 1888 BB, p. 287.
 Permian; Texas.

Clepsydrops natalis Cope.

- Cope, E. D. 1878 B, pp. 509, 529.
 Case, E. C. 1900 A, p. 717.
 Cope, E. D. 1881 K, p. 163.
 1884 I, pp. 38, 42.
 1884 EE, pl. xxxviii, fig. 6.
 1884 HH, p. 1255.
 1885 A, fig. 6.
 1888 BB, p. 287.
 1892 Z.
 Seeley, H. G. 1889 A, p. 290.
 Zittel, K. A. 1890 A, p. 574.
 Permian; Texas.

Olepsydrops pedunculatus Cope.

- Cope, E. D. 1877 N, p. 62.
 Baur and Case 1899 A, p. 2.
 Case, E. C. 1900 A, p. 713, pl. ii, figs. 4a-5d.
 Cope, E. D. 1881 K, p. 163.
 1888 BB, p. 287.
 Permian; Illinois.

Olepsydrops vinalovii Cope.

- Cope, E. D. 1877 N, p. 61.
 Baur and Case 1899 A, p. 2.
 Case, E. C. 1900 A, p. 714, pl. ii, figs. 7a-7d.
 Cope, E. D. 1881 K, p. 163.
 1888 BB, p. 287.
 Permian; Illinois.

DIMETRODON Cope. Type *D. incisivus* Cope.

- Cope, E. D. 1878 B, pp. 512, 529.
 Ameghino, F. 1896 A, p. 487.
 Baur and Case 1897 A.
 1899 A.
 Case, E. C. 1897 A.
 1899 A.
 Cope, E. D. 1880 A, p. 42, pl. vi.
 1881 K, p. 163.
 1886 J.
 1888 AA, p. 244.
 1888 BB, p. 292.
 1888 DD, p. 363.
 1889 C, p. 226.
 1897 A, p. 315.
 Miller, S. A. 1889 A, p. 620.
 Nicholson and Lydekker 1889 A, p. 1050.
 Osborn, H. F. 1888 G, p. 222, fig. 8.
 Seeley, H. G. 1889 A, p. 283.
 1895 A, p. 1007.
 1895 B, p. 110.
 Steinmann and Döderlein 1890 A, p. 624.
 Wortman, J. L. 1886 A, p. 383.
 Zittel, K. A. 1890 A, p. 576.

Dimetrodon gigas Cope.

- Cope, E. D. 1878 U. (Clepsydrops.)
 Baur and Case 1899 A, p. 12.
 Cope E. D. 1878 B, p. 515.
 1881 K, p. 163.

- Cope, E. D. 1888 BB, p. 287.
 Permian; Texas.

Dimetrodon incisivus Cope.

- Cope, E. D. 1878 U. (Clepsydrops.)
 Baur and Case 1897 A, figures.
 1899 A, p. 12, pls. i-iii.
 Case, E. C. 1897 A, figs. 1-4.
 Cope, E. D. 1878 B, p. 512.
 1881 A, p. 81.
 1881 K, p. 163.
 1886 J.
 1888 BB, pp. 287, 292.
 Seeley, H. G. 1889 A, p. 283.
 Zittel, K. A. 1890 A, p. 576, fig. 512.
 Permian; Texas.

Dimetrodon rectiformis Cope.

- Cope, E. D. 1878 B, p. 514.
 1881 K, p. 163.
 1888 BB, p. 287.
 Permian; Texas.

Dimetrodon semiradicatus Cope.

- Cope, E. D. 1881 A, p. 80.
 1881 K, p. 163. (D. biradicatus.)
 1888 BB, p. 287.
 Permian; Texas.

NAOSAURUS Cope. Type *N. claviger* Cope.

- Cope, E. D. 1886 J.
 Baur and Case 1899 A.
 Cope, E. D. 1892 Z, p. 14.
 1897 A, p. 316.
 Fritsch, A. 1896 B, p. 2.
 Lydekker, R. 1890 A, p. 106.
 Seeley, H. G. 1889 A, p. 283.
 1895 A, p. 998.
 Zittel, K. A. 1890 A, p. 576.

Naosaurus claviger Cope.

- Cope, E. D. 1886 J.
 1888 BB, pp. 287, 298, pl. ii, figs. 1, 2; pl. iii, figs. 1-3.
 1892 Z, pl. ii, fig. 7.
 Lydekker, R. 1890 A, p. 107.
 Osborn, H. F. 1898 N, pp. 842, 844, fig. 4.
 1898 Q, p. 7, pl. i, fig. 3.

- Zittel, K. A. 1890 A, p. 576, fig. 520.
 Permian; Texas.

Naosaurus cruciger Cope.

- Cope, E. D. 1878 CC. (Dimetrodon.)
 Baur and Case 1899 A, p. 11.
 Cope, E. D. 1880 A, p. 44. (Dimetrodon.)
 1881 A, p. 82. (Dimetrodon.)
 1881 K, p. 163. (Dimetrodon.)
 1886 J.
 1888 BB, pp. 287, 294, pl. iii, fig. 3.
 Lydekker, R. 1890 A, p. 107.
 Permian; Texas.

Naosaurus microdus Cope.

- Cope, E. D. 1884 I, p. 37. (Edaphosaurus.)
 1886 J.
 1888 BB, pp. 287, 294, pl. ii, fig. 3.
 Permian; Texas.

EDAPHOSAURUS Cope. Type *E. pogonias* Cope.*Cope, E. D.* 1882 B, p. 448.

1884 I, p. 37.

1886 A.

1892 Z, p. 15.

Miller, S. A. 1889 A, p. 621.

Seeley, H. G. 1889 A, p. 284.

1896 A, p. 998.

Zittel, K. A. 1890 A, p. 577.

Edaphosaurus pogonias Cope.*Cope, E. D.* 1882 B, p. 449.

1888 BB, p. 287.

1892 Z, pl. ii, fig. 5.

Permian; Texas.

EMBOLOPHORUS Cope. Type *E. fritillus* Cope.*Cope, E. D.* 1878 B, pp. 518, 529.

1884 I, p. 43.

1885 A, p. 474, figs. 4, 5.

Lydekker, R. 1890 A, p. 108.

Miller, S. A. 1889 A, p. 621.

Seeley, H. G. 1889 A, p. 284.

1896 B, p. 111.

Zittel, K. A. 1890 A, p. 577.

Cope, E. D. 1884 I, p. 43, pl. 1, figs. 4, 5. ("Embolophorus.")Lydekker, 1890 A, p. 109. (*E. dollovarianus*.)

Permian; Texas.

Embolophorus fritillus Cope.*Cope, E. D.* 1878 B, p. 518.

1881 K, p. 164.

1884 BB.

Hulke, J. W. 1888 A, p. 423.

Lydekker, R. 1890 A, p. 109.

Permian; Texas.

Embolophorus dollovarianus Cope.*Cope, E. D.* 1888 BB, p. 287.**ARCHÆOBELUS Cope. Type *A. vellicatus* Cope.***Cope, E. D.* 1877 E, p. 192.

Case, E. C. 1900 A, p. 715.

Miller, S. A. 1889 A, p. 618.

Zittel, K. A. 1890 A, p. 576.

Archæobelus vellicatus Cope.*Cope, E. D.* 1877 E, p. 192.

Case, E. C. 1900 A, p. 715, pl. iii, fig. 1.

Cope, E. D. 1877 N, p. 56. ("Species No. 4.")

1881 K, p. 163.

1888 BB, p. 287.

Permian; Illinois.

LYSOROPHUS Cope. Type *L. tricarinatus* Cope.*Cope, E. D.* 1877 E, p. 187.

Case, E. C. 1900 A, p. 714.

Cope, E. D. 1888 BB, p. 287. (*Lysorophus*.)

Miller, S. A. 1889 A, p. 623.

Zittel, K. A. 1890 A, p. 576.

Lysorophus tricarinatus Cope.*Cope, E. D.* 1877 E, p. 187.

Baur and Case 1899 A, p. 2.

Case, E. C. 1900 A, pp. 714, 717, pl. ii, figs. 12a-13c.

Cope, E. D. 1881 K, p. 164.1888 BB, p. 287. (*Lysorophus*.)

Permian; Illinois.

THEROPLEURA Cope. Type *T. retroversa* Cope.*Cope, E. D.* 1878 B, p. 519.

Baur and Case 1899 A, p. 11.

Cope, E. D. 1880 A, p. 40.

1888 BB, p. 287.

Miller, S. A. 1889 A, p. 626.

Nicholson and Lydekker 1889 A, p. 1060.

Seeley, H. G. 1889 A, p. 283.

Zittel, K. A. 1890 A, p. 576.

Theropleura obtusidens Cope.*Cope, E. D.* 1880 A, p. 41.

Baur and Case 1899 A, p. 11.

Cope, E. D. 1881 K, p. 164.

1888 BB, p. 287.

Permian; Texas.

Theropleura retroversa Cope.*Cope, E. D.* 1878 B, p. 519.*Cope, E. D.* 1881 K, p. 163.

1888 BB, p. 287.

Permian; Texas.

Theropleura triangulata Cope.*Cope, E. D.* 1878 B, p. 520.

1881 K, p. 164.

1888 BB, p. 287.

Permian; Texas.

Theropleura uniformis Cope.*Cope, E. D.* 1878 B, p. 519.

Baur and Case 1899 A, p. 11.

Cope, E. D. 1880 A, p. 40.

1881 K, p. 163.

1888 BB, p. 287.

Permian; Texas.

OPHIACODON Marsh. Type *O. mirus* Marsh.

Marsh, O. C. 1878 C, p. 411.
 Baur and Case 1899 A, p. 5.
 Credner, H. 1888 A, p. 555.
 Miller, S. A. 1889 A, p. 624.
 Zittel, K. A. 1890 A, p. 574.

***Ophiacodon grandis* Marsh.**

Marsh, O. C. 1878 C, p. 411.

Baur and Case 1899 A, p. 5. (Eryops?)
 Permian; New Mexico.

***Ophiacodon mirus* Marsh.**

Marsh, O. C. 1878 C, p. 411.
 Baur and Case 1899 A, p. 5.
 Permian; New Mexico.

SPHENACODON Marsh. Type *S. ferox* Marsh.

Marsh, O. C. 1878 C, p. 410.
 Baur and Case 1899 A, p. 4.
 Credner, H. 1888 A, p. 555.
 Zittel, K. A. 1890 A, p. 574.

***Sphenacodon ferox* Marsh.**

Marsh, O. C. 1878 C, p. 410.
 Baur and Case 1899 A, p. 4.
 Permian; New Mexico.

BOLOSAURIDÆ.

Cope, E. D. 1878 B, p. 529.
 1881 K, p. 164.
 1888 P.

Cope, E. D. 1888 BB, p. 288.
 Lydekker, R. 1890 A, p. 95.
 Nicholson and Lydekker 1899 A, p. 1060.

BOLOSAURUS Cope. Type *B. striatus* Cope.

Cope, E. D. 1878 B, pp. 506, 529.
 1878 U.
 1888 BB, p. 288.
 1890, in Lydekker, R. 1890 A, p. 95.
 Miller, S. A. 1889 A, p. 619.
 Nicholson and Lydekker 1899 A, p. 1060.
 Zittel, K. A. 1890 A, p. 582.

***Bolosaurus striatus* Cope.**

Cope, E. D. 1878 B, p. 506.
 1878 U.
 1881 K, p. 164.
 1888 BB, p. 288.
 Permian; Texas.

METAMOSAURUS Cope. Type *M. fossatus* Cope.

Cope, E. D. 1878 B, p. 516.
 1888 BB, p. 288.
 Miller, S. A. 1889 A, p. 623.
 Zittel, K. A. 1890 A, p. 582.
 The position of this genus is uncertain.

***Metamosaurus fossatus* Cope.**

Cope, E. D. 1878 B, p. 516.
 1881 K, p. 164.
 1888 BB, p. 288.
 Permian; Texas.

Order TESTUDINES Shaw.

Shaw, G. 1802, Gen. Zool., iii, p. 5.

Unless otherwise indicated, the following authors refer to this order under the name *Testudinata*.

Agassiz, L. 1857 B.

Baur, G. 1885 E, p. 632. (Chelonia.)

1886 G, pp. 687, 740.

1887 A, p. 484.

1887 B.

1887 C, p. 97.

1887 E.

1887 F.

1888 A.

1888 B.

1889 B.

1889 C.

1889 F, p. 472.

1889 H.

1889 J.

1890 D.

1891 B, p. 417.

Baur, G. 1891 C.

1892 A.

1892 D, p. 206.

1893 A.

1893 B.

1894 A.

1895 A.

1895 D.

1896 A.

1896 B.

Bemmelen, J. F. 1896 A.

Bienz, A. 1895 A.

Born, G. 1890 A, p. 68.

Boulenger, G. A. 1889 A. (Chelonia.)

Calori, L. 1894 A.

Case, E. C. 1897 B. (Testudines.)

Cope, E. D. 1869 M, p. 27.

1871 B.

1873 E, p. 648.

1875 X, p. 16.

1882 E, p. 142.

- Cope, E. D. 1882 J, p. 986.
 1884 O, p. 111.
 1885 G, p. 246.
 1887 S, p. 334.
 1889 R, p. 863.
 1891 N, p. 39.
 1892 R.
 1892 Z, p. 20.
 1895 E.
 1896 A.
 1896 I.
 1898 B, pp. 55, 92.
 1900 A, p. 160.
 Cuvier, G. 1834 A, ix, pp. 347-496, pls. cccxxxix-ccxlili.
 Dollo, L. 1884 A.
 1886 A. (Rhynchochelones, or Euchelonia.)
 1888 C.
 1893 C, p. 253. ("Chéloniens.")
 Fürbringer, M. 1900 A, pp. 311, 527, 540, 556, 593, 630 (Chelonia.)
 Gadow, H. 1889 A, p. 462.
 1896 A, p. 41.
 1898 A, p. 20. (Chelonia.)
 1899 A, p. 35.
 Gaupp, E. 1894 A.
 1895 B, p. 58.
 Gegenbaur, C. 1864 A.
 1865 B, p. 35.
 1898 A.
 Goette, A. 1899 A, p. 407.
 Gray, J. E. 1869 B.
 1873 B.
 Günther, A. 1877 A.
 1886 A, p. 445.
 1888 A, p. 456. (Chelonia.)
 Haeckel, E. 1895 A, p. 316. (Chelonia.)
 Hallmann, E. 1837 A, p. 22.
 Hay, O. P. 1898 F, p. 929. (Testudines.)
 1899 F, p. 682. (Testudines.)
 Hayscraft, J. B. 1891 A. (Chelonia.)
 Hoffmann, C. K. 1876 A.
 1878 A.
 1879 A.
 1890 A.
 Hulke, J. W. 1892 A, p. 248.
 Huxley, T. H. 1872 A, p. 170. (Chelonia.)
 Kehner, F. A. 1876 A.
 Kehrner, G. 1886 A, p. 83.
 Köstlin, O. 1844 A.
 Lang and Rüttemeyer 1867 A.
 Leidy, J. 1871 C, p. 365.
 Lortet, L. 1892 A.
 Lydekker, R. 1889 D. (Chelonia.)
 1889 E. (Chelonia.)
 1889 G. (Chelonia.)
 Maack, G. A. 1869 A.
 Marsh, O. C. 1877 E. (Chelonia.)
 Mehnert, E. 1890 A.
 Meyer, H. 1860 D, p. 140.
 Mivart, St. G. 1886 A. (Chelonia.)
 Monks, S. P. 1878 A.
 Müller, J. 1831 A, p. 199. (Testudines.)
 Nicholson and Lydekker 1889 A, p. 1062. (Chelonia.)
 Owen, R. 1842 A, p. 160. (Chelonia.)
 1849 B. (Chelonia.)
 1849 C. (Chelonia.)
 1860 A, pp. 161-166. (Chelonia.)
 1866 A. (Chelonia.)
 Parker, W. K. 1864 A.
 1868 A, p. 133. (Chelonia.)
 1879 B, p. 63.
 Peters, W. 1839 B. ("Schildkröten.")
 Pictet, F. J. 1853 A, p. 435. ("Chéloniens.")
 Portis, A. 1882 A. (Chelonia.)
 Rosenberg, E. 1891 A.
 Rüttemeyer, L. 1873 A.
 1874 A.
 Seeley, H. G. 1880 A. (Chelonia.)
 1900 A, p. 641. ("Chéloniens.")
 Segond, L. A. 1873 A, p. 2, *et seq.* (Vernacular name.)
 Siebenrock, F. 1897 A.
 1898 A.
 Stannius, H. 1856 A. (Chelonia.)
 Steinmann and Döderlein 1890 A, p. 630.
 Strauch, A. 1890 A, p. 9. (Chelonia.)
 Tomes, C. 1898 A, p. 267. (Chelonia.)
 Wiedersheim, R. 1889 A, p. 438.
 Wieland, G. R. 1900 B, p. 413.
 Woodward, A. S. 1898 B, p. 170. (Chelonia.)
 Zittel, K. A. 1890 A, pp. 449, 500.

Suborder ATHECÆ Cope.

- Cope, E. D. 1871 B, p. 235.
 Baur, G. 1886 G, p. 687.
 1888 A.
 1889 A.
 1890 A.
 Boulenger, G. A. 1889 A, pp. 4, 7.
 Case, E. C. 1897 B, p. 21.
 Cope, E. D. 1875 X, p. 16.
 1891 I.
 1891 N, p. 39.
 1898 B, p. 62.
 Dames, W. 1894 A.
 Dollo, L. 1886 A, p. 79.
 Dollo, L. 1887 A.
 1888 C.
 Gadow, H. 1890 A, p. 21.
 Goette, A. 1899 A, p. 422. (Athea.)
 Günther, A. 1888 A, p. 456.
 Haeckel, E. 1895 A, pp. 319, 325. (Atheconia.)
 Hay, O. P. 1898 F.
 Lydekker, R. 1889 G, p. 223. (Athecata.)
 Seeley, H. G. 1880 B, p. 412. (Dermochelyidæ.)
 Steinmann and Döderlein 1890 A, p. 633.
 Strauch, A. 1890 A, p. 38. (Athea.)
 Woodward, A. S. 1887 C, p. 7.

DERMOCHELYIDÆ.¹

- Fitzinger*, 1843, Syst. Rept. (Dermatochelyidæ.)
Agassiz, L. 1857 B, p. 320. (Sphargididæ.)
Baur, G. 1886 G, p. 687.
 1887 E.
 1888 A.
 1889 A.
 1889 B, p. 42.
 1889 H, p. 55. (Dermochelys.)
 1889 J, p. 39.
 1890 D, p. 534.
 1893 B, p. 673.
 1896 B.
Bemmelen, J. F. 1896 A, p. 323.
 1896 B, p. 279.
Boulenger, G. A. 1888 A, p. 353.
 1889 A, pp. 4, 7. (Sphargididæ.)
Case, E. C. 1897 B.
Dames, W. 1894 A. (Sphargididæ.)
Dollo, L. 1887 A. (Sphargis.)
 1888 C. (Sphargididæ.)
Fürbringer, M. 1900 A, p. 632. (Sphargidæ.)
- Gervais*, P. 1872 A. (Sphargididæ.)
Goette, A. 1899 A, p. 422. ("Dermochelyden.")
Gray, J. E., 1825, Ann. Philos., x. (Sphargidæ.)
 1869 B, p. 224. (Sphargididæ.)
Günther, A. 1888 A, p. 456. (Sphargididæ.)
Hay, O. P. 1898 F, p. 931.
Hoffmann, C. K. 1890 A, with plates. (Sphargis.)
Kükenthal, W. 1890 B, p. 240.
 1890 C, p. 162.
Lydekker, R. 1889 G, p. 223.
Nicholson and *Lydekker* 1889 A, p. 1090.
Seeley, H. G. 1880 B.
Siebenrock, F. 1897 A. (Sphargididæ.)
Strauch, A. 1890 A, p. 38. (Sphargida.)
Vaillant, L. 1894 A. (Sphargididæ.)
Wieland, G. R. 1900 A, p. 237.
 1900 B, p. 413.
Winckler, T. C. 1869 A, p. 60. (Sphargis.)
Woodward, A. S. 1887 C. (Sphargis.)
Zittel, K. A. 1890 A, p. 517.

Suborder THECOPHORA² Dollo.

- Dollo*, L. 1886 A, pp. 79, 91.
Boulenger, G. A. 1889 A, pp. 4, 11.
Case, E. C. 1897 B.
Dollo, L. 1887 A.
 1888 C.
Fraas, E. 1899 A, p. 401. (Proganochelys.)
Gadow, H. 1898 A, p. 20.
Goette, A. 1899 A, p. 426.
- Günther*, A. 1888 A, p. 457. (Testudinata.)
Haeckel, E. 1895 A, p. 319.
Hay, O. P. 1898 F, p. 940.
Lydekker, R. 1889 G, p. 3. (Testudinata.)
Nicholson and *Lydekker* 1889 A, p. 1091. (Testudinata.)
Seeley, H. G. 1880 B, p. 412. (Aspidochelyidæ.)
Vaillant, L. 1894 A. (<Craspedota.)

Superfamily PLEURODIRA Cope.

- Cope*, E. D. 1869 M, p. 156.
Baur, G. 1887 B, p. 101.
 1888 B.
 1889 H.
 1889 J.
 1890 D, p. 535.
 1891 B, p. 420 (Pleurodira); p. 422 (Amphichelydia).
 1891 C, p. 351.
 1896 B, p. 566. (Amphichelydia.)
Boulenger, G. A. 1888 A.
 1889 A, pp. 5, 187.
 1889 B.
Cope, E. D. 1871 B, p. 236.
 1872 D.
 1891 N, p. 39.
 1898 B, p. 63.
Dollo, L. 1886 A.
- Duméril* and *Bibron*, 1835, Érp. Gén., ii, p. 175.
 ("Pleurodèrès.")
Fraas, E. 1899 A, p. 401. (Proganochelys.)
Fürbringer, M. 1900 A, p. 632.
Gadow, H. 1898 A, p. 21.
Goette, A. 1899 A, p. 430.
Günther, A. 1888 A, p. 458.
Haeckel, E. 1895 A, p. 329. (Pleurodera.)
Hay, O. P. 1898 F, p. 947.
Lydekker, R. 1889 G, p. 158 (Pleurodira); p. 204 (Amphichelydia).
Nicholson and *Lydekker* 1889 A, p. 1091 (Amphichelydia); p. 1094 (Pleurodira).
Peters, W. 1839 A. (Hydromedusa maximiliani.)
Quenstedt, F. A. 1889 A. (On Psammochelys.)
Siebenrock, F. 1898 A, p. 425.
Steinmann and *Döderlein* 1890 A, p. 638.
Zittel, K. A. 1890 A, pp. 449, 542.

¹ References are given to the literature of this family on account of the bearing it has on opinions regarding the evolution and classification of *Testudines*.

² This group as here understood is equivalent to that so called by Dollo, *minus* the *Trionychia*.

PLEUROSTERNIDÆ.

Cope, E. D. 1875 X, p. 17.

Baur, G. 1888 B, p. 420.

1891 B, p. 426 (Pleurosternidæ); p. 428 (Baenidæ).

Cope, E. D. 1882 E, pp. 143, 145. (Baenidæ.)

1884 O, p. 111 (Pleurosternidæ); pp. 111, 112 (Baenidæ).

1896 B, p. 63. (Baenidæ; Pleurosternidæ.)

Dollo, L. 1886 A, p. 78. (Pleurosternidæ; Baenidæ.)

Grabbe, A. 1884 A. (Pleurosternon.)

Günther, A. 1888 A, p. 457. (Baenidæ.)

Lydekker, R. 1889 E. (Pleurosternum.)
1889 G, p. 206.

Nicholson and Lydekker 1889 A, p. 1092.

Owen, R. 1853 B, p. 21. (Pleurosternon.)

Rütimeyer, L. 1873 A, p. 143. (Pleurosternon.)

Steinmann and Döderlein 1890 A, p. 639.

Woodward, A. S. 1898 B, p. 172. (Pleurosternum.)

COMPSEMYS Leidy. Type *C. victus* Leidy.

Leidy, J. 1856 Q, p. 312.

Baur, G. 1890 D, p. 534.

1891 B, p. 411.

1896 B, p. 565.

Cope, E. D. 1869 M, p. 124.

1875 E, p. 91.

1875 I.

1875 W, p. 336.

1877 F, p. 196.

1882 E, p. 145.

1884 O, p. 113.

Leidy, J. 1860 A, p. 152.

Lydekker, R. 1889 G, p. 137.

Marsh, O. C. 1890 E, p. 177. (Glyptops, type *G. ornatus*.)

Nicholson and Lydekker 1889 A, p. 1106.

Zittel, K. A. 1890 A, p. 534.

Compsemys lineolatus Cope.

Cope, E. D. 1874 C, p. 30. (Adocus?)

1874 B, p. 454. (Adocus?)

1875 E, pp. 92, 263, pl. vi, figs. 11, 12. (Adocus.)

1877 G, p. 573.

Cretaceous (Laramie); Montana, Colorado, Saskatchewan?

Compsemys obscurus (Leidy).

Leidy, J. 1856 Q, p. 312. (Emys.)

Cope, E. D. 1869 M, p. 124.

1874 C, p. 30.

Cope, E. D. 1875 E, p. 261.

1877 G, p. 573. (Emys.)

Leidy, J. 1860 A, p. 153, pl. xi, fig. 4.

Cretaceous (Laramie); Montana.

Compsemys plicatulus Cope.

Cope, E. D. 1877 F, p. 196.

Baur, G. 1890 D, p. 534.

1891 B.

1896 B, p. 565.

Marsh, O. C. 1890 E, p. 176, pl. vii. (Glyptops ornatus.)

1897 C, p. 507, figs. 63, 64. (Glyptops ornatus.)

Jurassic; Colorado, Wyoming.

Compsemys victus Leidy.

Leidy, J. 1856 Q, p. 312.

Cope, E. D. 1869 M, p. 124.

1874 B, p. 454.

1874 C, p. 30.

1875 E, p. 261, pl. vi, figs. 15, 16.

1875 I. (*C. victus*?)

1877 G, p. 573.

Leidy, J. 1860 A, p. 152, pl. xi, figs. 5-7.

Marsh, O. C. 1897 C, p. 527.

Cretaceous (Laramie); Montana, Colorado, Saskatchewan?

Compsemys sp. indet.

Cope, E. D. 1888, CC, p. 301.

Eocene (Puerco); New Mexico.

BAENA Leidy. Type *B. arenosa* Leidy.

Leidy, J. 1871 C, p. 367.

Baur, G. 1888 B, p. 422.

1889 H, p. 58.

1891 B, p. 425.

Cope, E. D. 1873 E, p. 621.

1882 E, p. 145.

1882 J, p. 900.

1884 O, pp. 112, 144.

1886 M.

Günther, A. 1888 A, p. 456.

Leidy, J. 1872 L, p. 162. (Chisternon, type *Baena undata*.)

1873 B, p. 160 (Baena); p. 169 (Chisternon).

1873 S, p. 123.

Nicholson and Lydekker 1889 A, p. 1093.

Steinmann and Döderlein 1890 A, p. 637.

Zittel, K. A. 1890 A, p. 536.

Baena arenosa Leidy.

Leidy, J. 1870 S, p. 123.

Baur, G. 1891 B, p. 427.

Cope, E. D. 1873 E, p. 623.

1875 C, p. 36.

1875 F, p. 96.

1877 K, p. 52, pl. xxiv, fig. 32.

1882 J, p. 990, fig. 8.

1884 O, p. 148, pl. xvii, figs. 1, 2.

Dollo, L. 1888 A, pl. ii, fig. 11.

King, C. 1878 A, p. 404.

Leidy, J. 1871 C, p. 367. (*B. arenosa*, *B. affinis*.)

1871 K, p. 229.

1872 B, p. 368.

1873 B, pp. 161, 341, pl. xiii, figs. 1-5.

Eocene (Bridger); Wyoming; (Wasatch); New Mexico.

Bařna hebraica Cope.

- Cope, *E. D.* 1872 M, p. 463.
 1873 E, p. 621.
 1884 O, p. 146, pl. xix, figs. 1, 2.
 Eocene (Bridger); Wyoming.

Bařna? ponderosa Cope.

- Cope, *E. D.* 1873 E, p. 624.
 1884 O, p. 150, pl. xvii, figs. 3-8.
 Eocene (Bridger); Wyoming.

Bařna undata Leidy.

- Leidy, *J.* 1871 K, p. 228.
 Cope, *E. D.* 1873 E, p. 622.
 1884 O, p. 147, pl. xix, figs. 3-5.
 Leidy, *J.* 1871 B, p. 373.
 1872 B, p. 369.
 1872 L, p. 162. (Chisternon.)
 1873 B, pp. 169, 341, pl. xiv, figs. 1, 2 (Chisternon.)
 Osborn, Scott, and Speir 1878 A, p. 96.
 Eocene (Bridger); Wyoming.

POLYTHORAX Cope. Type *P. missuriensis* Cope.

- Cope, *E. D.* 1876 H, p. 258.
 1882 E, p. 145.
 1884 O, p. 112.
 Nicholson and Lydekker 1889 A, p. 1093.

Polythorax missuriensis Cope.

- Cope, *E. D.* 1876 H, p. 258.
 1877 G, p. 573.
 Cretaceous (Laramie); Montana.

PELOMEDUSIDÆ.

- Cope, *E. D.* 1868 B, p. 282.
 Baur, G. 1888 B, p. 420. (Pelomedusidæ, Podocnemidæ.)
 1891 B, p. 424. (Bothremydæ.)

- Boulenger, G. A. 1889 A, p. 191.
 Lydekker, R. 1889 G, p. 170.
 Nicholson and Lydekker 1889 A, p. 1099.
 Steinmann and Döderlein 1890 A, p. 639.

BOTHREMYS Leidy. Type *B. cookii* Leidy.

- Leidy, *J.* 1865 A, pp. 110, 120.
 Baur, G. 1889 J, p. 38.
 1891 B, p. 423.
 Cope, *E. D.* 1867 A, p. 40.
 1869 M, pp. 148, 157.
 Günther, A. 1888 A, p. 457.
 Lydekker, R. 1889 G, p. 174.
 Nicholson and Lydekker 1889 A, p. 1099.
 Zittel, K. A. 1890 A, p. 547.

Bothremys cookii Leidy.

- Leidy, *J.* 1865 A, pp. 110, 120, pl. xviii, figs. 4-8.
 Cope, *E. D.* 1869 B, p. 735.
 1869 K, p. 89.
 1869 M, p. 157.
 1875 E, p. 263.
 Leidy, *J.* 1865 D, p. 73.
 Maack, G. A. 1869 A, p. 280.
 Cretaceous (Green-sand No. 4); New Jersey.

TAPHROSOPHYS Cope. Type *T. molops* Cope.

- Cope, *E. D.* 1869 K, p. 90.
 Baur, G. 1888 B, p. 421.
 1891 B, p. 424.
 Cope, *E. D.* 1869 K, p. 90. (Proconias, type *Platemys sulcatus* Leidy).
 1869 M, p. 157.
 1873 E, p. 649.
 Günther, A. 1888 A, p. 457.
 Lydekker, R. 1889 G, p. 174.
 Nicholson and Lydekker 1889 A, p. 1099.
 Zittel, K. A. 1890 A, p. 547. (Syn. of *Bothremys*).

Taphrosophys molops Cope.

- Cope, *E. D.* 1869 M, pp. 158, 159, figs. 43, 44.
 1869 B, p. 735.
 1869 K, p. 89.
 1869 M, pp. 158, 160 (Proconias enodis); p. 162 (*T. molops*, var. *enodis*).
 1870 D, p. 274.
 1875 E, p. 263.
 Zittel, K. A. 1890 A, p. 547. (Bothremys.)
 Cretaceous (Green-sand); New Jersey.

Taphrosophys leslianus Cope.

- Cope, *E. D.* 1869 M, pp. 159, 166 (Taphrosophys); p. 165, line 14 (Proconias).
 1875 E, p. 264.
 Cretaceous (Green-sand); New Jersey.

Taphrosophys nodosus Cope.

- Cope, *E. D.* 1869 M, pp. 159, 167, pl. i, fig. 16.
 1875 E, p. 264.
 Cretaceous (Green-sand); New Jersey.

Taphrosophys longinuchus Cope.

- Cope, *E. D.* 1869 M, pp. 159, 162.
 1875 E, p. 263.
 Cretaceous (Green-sand); New Jersey.

Taphrosophys strenuus Cope.

- Cope, *E. D.* 1869 K, pp. 89, 90. (Proconias.)
 1869 B, p. 735. (*T. princeps*.)
 1869 K, p. 89. (Proconias princeps.)
 1869 M, pp. 160, 167 (Proconias princeps); pp. 159, 166 B (Taphrosophys); p. 167 (Proconias).

Cope, E. D. 1875 E, p. 264.

1875 V, p. 34.

1878 EE.

Cretaceous (Green-sand); New Jersey, Georgia, North Carolina.

Cope's species *T. princeps* is last mentioned, and then only incidentally, in 1869 M, pp. 160, 167. It appears to have been regarded by Cope as a synonym of *T. strenuus*. In the Cope collection of reptiles the present writer has found the femur described on p. 166-B of Cope 1869M, and it has written on it, probably by Cope himself, the name "*Prochonias princeps*."

Taphrosphys sulcatus (Leidy).

Leidy, J. 1856 P, p. 303. (Platemys.)

Cope, E. D. 1869 B, p. 735.

1869 K, pp. 89, 90. (Prochonias.)

1869 M, pp. 159, 164, text figs. 45, 46 bis (Taphrosphys); p. 165 (Prochonias).

1875 E, p. 264.

Leidy, J. 1865 A, pp. 109, 120, pl. xix, fig. 4. (Platemys.)

Maack, G. A. 1869 A, p. 281. (Platemys.)

Cretaceous (Green-sand); New Jersey.

PLESIOCHELYIDÆ.

Lydekker, R. 1889 G, p. 183.

PLESIOCHELYS Rütimeyer. Type *P. solodurensis* Rütimeyer.

Rütimeyer L. 1873 A, p. 48.

Lydekker, R. 1889 D, p. 239.

1889 G, p. 196.

Maack, G. A. 1869 A, p. 320. (Stylemys in part; not of Leidy.)

Portis, A. 1878 A, p. 131.

Zittel, K. A. 1890 A, p. 544.

Plesiochelys belviderensis Cragin.

Cragin, F. W. 1894 A, p. 71, pl. ii, figs. 1-8.

Cretaceous (Comanche series); Kansas.

Superfamily **CRYPTODIRA** Cope.

Cope, E. D. 1869 M, p. 123.

Baur, G. 1889 H.

1889 J.

1890 D, p. 635.

1891 B, p. 419.

1893 B.

Boulenger, G. A. 1889 A, pp. 4, 11.

1889 B.

Cope, E. D. 1871 B, p. 235.

1884 O, p. 111.

1891 N, p. 39.

1898 B, p. 62.

Dollo, L. 1886 A.

Duméril and Bibron, 1835, Érp. Gén., ii, p. 172. ("Cryptodères.")

Fürbringer, M. 1900 A, p. 632.

Gadow, H. 1898, p. 20.

Goette, A. 1899 A, p. 430.

Günther, A. 1888 A, p. 457.

Hay, O. P. 1898 F, p. 947.

Lydekker, R. 1889 G, p. 25.

Nicholson and Lydekker 1889 A, p. 1101.

Williston, S. W., in Williston and Case 1898 A, p. 367.

Zittel, K. A. 1890, pp. 449.

PROTOSTEGIDÆ.

Cope, E. D. 1873 E, p. 649.

Baur, G. 1888 A.

1889 A, pp. 184, 191.

1890 D, p. 534.

Case, E. C. 1897 B.

Cope, E. D. 1875 X, p. 16.

Lydekker, R. 1889 G, p. 228.

Nicholson and Lydekker 1889 A, p. 1089.

Steinmann and Döderlein 1890 A, p. 634.

Wieland, G. R. 1898 A, p. 19.

1900 A, p. 250.

PROTOSTEGA Cope. Type *P. gigas* Cope.

Cope, E. D. 1871 K, p. 175.

Baur, G. 1886 G, p. 687.

1889 A.

1890 D.

1896 B.

Capellini, G. 1884 A.

Case, E. C. 1897 B.

Cope, E. D. 1872 F, p. 334.

1872 L.

1873 E, p. 648.

1875 E, pp. 99, 256.

1884 O, p. 114.

Dollo, L. 1888 C, p. 72.

Goette, A. 1899 A, p. 426.

Hay, O. P. 1896 B.

1898 F, p. 929.

Lydekker, R. 1889 G, pp. vii, 229.

Marsh, O. C. 1877 E, p. 345. (Atlantochelys.)

1877 F. (Atlantochelys.)

Nicholson and Lydekker 1889 A, p. 1089.

Wieland, G. R. 1900 A, pp. 237, 250.

1900 B, p. 416.

Woodward, A. S. 1887 C, p. 9.

Zittel, K. A. 1890 A, p. 519.

Protostega gigas Cope.

- Cope, E. D. 1871 K, p. 175.
 Capellini, G. 1884 A.
 Case, E. C. 1897 B, pls. iv-vi.
 Cope, E. D. 1872 F, pp. 323, 335.
 1872 L, p. 433.
 1875 E, pp. 48, 102, 256, pl. ix, figs. 1-7; pls. x-xiii.
 1878 Q.

- Dana, J. D. 1876, Man. Geol., ed. ii, p. 466. (Atlantochelys.)
 Hay, O. P. 1896 B, pls. iv, v.
 Sternberg, C. 1899 A, p. 126, figures.
 Wieland, G. A. 1896 A.
 1898 A.
 1900 A, p. 238.
 1900 B, p. 416, figs. 8, 19.
 Cretaceous (Niobrara); Kansas.

ARCHELON Wieland. Type *A. ischyros* Wieland.

- Wieland, G. R. 1896 A, p. 399.
 Hay, O. P. 1896 F, p. 929. (Protostega.)
 Wieland, G. R. 1898 A, p. 15. (Protostega.)

Archelon ischyros Wieland.

- Wieland, G. R. 1896 A, p. 399, pl. vi, text figs. 2-19.
 Case, E. C. 1897 B, p. 52. (Protostega.)
 Wieland, G. R. 1898 A, p. 15, pl. ii, text figs. 1, 2 (Protostega.)

- Wieland, G. R. 1900 A, p. 237, pl. ii, text figs. 1-3; 6.
 1900 B, p. 420, figs. 17, 18.
 Williston, S. W. 1897 H, p. 246. (Protostega.)
 Cretaceous (Pierre); South Dakota.

Archelon marshii Wieland.

- Wieland, G. R. 1900 A, p. 248.
 Cretaceous (Pierre); South Dakota.

NEPTUNOCHELYS Wieland. Type *Protostega tuberosa* Cope.

- Wieland, G. R. 1900 B, p. 418.

Neptunochelys tuberosa (Cope).

- Cope, E. D. 1872 L, p. 433. (Platecarpus, *errore*.)
 Baur, G. 1889 A, p. 189.
 Cope, E. D. 1869 A, p. 265. (Platecarpus tympaniticus, in part.)
 1869 M, pp. 199, 200. (Platecarpus tympaniticus, in part.)

- Cope, E. D. 1872 F, p. 334. (Protostega.)
 1875 E, p. 257. (Protostega.)
 Leidy, J. 1865 A, p. 118, pl. viii, figs. 1, 2. (?Holcodon acutidens, in part.)
 1873 B, p. 342. (Atlantochelys.)
 Wieland, G. R. 1900 B, p. 418, figs. 9, 10. (Neptunochelys.)
 Cretaceous; Mississippi.

ATLANTOCHELYS Agassiz. Type *A. mortoni* Agassiz.

- Agassiz, L., in Leidy, J. 1865 A, p. 43.
 1849 A, p. 169. (No definition.)
 1850 B. (No definition.)
 Baur, G. 1889 A, p. 189.
 Cope, E. D. 1869 M, p. 185.
 Dollo, L. 1888 C, p. 67.
 Hay, O. P. 1896 F, p. 930.
 Leidy, J. 1873 B, p. 342.
 Lydekker, R. 1889 G, p. 229.
 Marsh, O. C. 1877 E, p. 345.
 1877 F.

Atlantochelys mortoni Agassiz.

- Agassiz, L., in Leidy, J. 1865 A, p. 43, pl. viii, figs. 3-5.

- Agassiz, L. 1849 A, p. 169. (No description.)
 1850 B. (No description.)
 Baur, G. 1889 A, p. 189. ("Protostega neptunia.")
 Cope, E. D. 1869 M, p. 185.
 1872 F, p. 334. (Protostega neptunia.)
 1872 L, p. 433. (Protostega neptunia.)
 1873 E. (Protostega neptunia.)
 Hay, O. P. 1896 F, p. 930.
 Leidy, J. 1865 A, p. 117. (Mosasaurus mitchelli, in part.)
 1873 B, p. 342.
 Wieland, G. R. 1900 B, p. 419, figs. 14-16.
 Cretaceous; New Jersey.

THALASSEMYDIDÆ.

- Baur, G. 1889 A, p. 191. (Thalassemydidae, Lytolomidae.)
 Cope, E. D. 1869 M, p. 235. (Propleuridae.)
 1870 T, p. 137. (Propleuridae.)
 1871 C, p. 563. (Propleuridae.)
 1872 B, p. 22. (Propleuridae.)
 1872 D. (Propleuridae.)
 1879 A, p. 36. (Propleuridae.)
 1882 E, pp. 143, 144. (Propleuridae.)
 1882 J, p. 989. (Propleuridae.)
 1884 O, pp. 111, 112. (Propleuridae.)

- Cope, E. D. 1887 R. (Propleuridae.)
 Dollo, L. 1884 A, p. 71. (Thalassemydidae.)
 1886 A, p. 89. (Chelonidae, in part.)
 1888 A. (Propleuridae.)
 Lortet, L. 1892 A, p. 24. (Thalassemydidae.)
 Lydekker, R. 1889 A, p. 36. (Propleuridae.)
 1889 G, p. 25. (Chelonidae, in part.)
 Nicholson and Lydekker 1889 A, p. 1112. (Chelonidae.)
 Zittel, K. A. 1890 A, p. 525 (Chelonemydidae); p. 527 (Thalassemydidae).

OSTEOPTYGIS Cope. Type *O. emarginatus* Cope.

- Cope, E. D.* 1868 E, p. 147.
Baur, G. 1889 A, p. 186.
 1889 B, p. 42.
Case, E. C. 1897 B, pp. 33, 43, 50.
Cope, E. D. 1869 K, p. 88. (*Osteopygis*; *Propleura*, type *Chelone sopita* Leidy.)
 1869 M, pp. 132, 235 (*Osteopygis*); pp. 138, 235 (*Propleura*); pp. 143, 235 (*Catapleura*, type *C. repanda*).
 1875 E, p. 257.
 1882 E, p. 144. (*Osteopygis*, *Propleura*, *Catapleura*.)
 1884 O, p. 112. (*Osteopygis*, *Propleura*, *Catapleura*.)
Lydekker R. 1889 A, p. 61.
 1889 D, p. 233. (*Lytoloma*.)
 1889 G, p. 52. (Syn.? of *Lytoloma*.)
Nicholson and Lydekker 1889 A, p. 1113. (*Lytoloma*.)
Zittel, K. A. 1890 A, p. 526.

***Osteopygis chelydrinus* Cope.**

- Cope, E. D.* 1869 K, p. 89.
 1868 E, p. 147. (No description.)
 1869 B, p. 735. (No description.)
 1869 M, pp. 135, 138, pl. vii, fig. 8.
 1875 E, p. 259. (*Catapleura*.)
 Cretaceous; New Jersey.

***Osteopygis emarginatus* Cope.**

- Cope, E. D.* 1869 K, p. 89.
 1869 B, p. 735.
 1868 E, p. 147. (No description.)
 1869 M, pp. 135, 136, 235, pl. vii, fig. 3.
 1875 E, p. 249.
 Cretaceous; New Jersey.

PERITRESIUS Cope. Type *Chelone ornata* Leidy.

- Cope, E. D.* 1869 K, p. 88.
 1869 M, p. 150.
 1882 E, p. 144.
 1884 O, p. 112.
Zittel, K. A. 1890 A, p. 526.
 The systematic position of this genus is doubtful.
***Peritresius ornatus* (Leidy.)**
Leidy, J. 1856 P, p. 303. (*Chelone*.)

***Osteopygis erosus* Cope.**

- Cope, E. D.* 1875 E, p. 258.
 Cretaceous; New Jersey.

***Osteopygis platylomus* Cope.**

- Cope, E. D.* 1869 K, p. 89.
 1869 B, p. 735.
 1869 M, pp. 135, 137, and II, figs. 38, 39.
 1875 E, p. 258.
 Cretaceous; New Jersey.

***Osteopygis ponderosus* (Cope).**

- Cope, E. D.* 1871 G, p. 46. (*Catapleura*.)
 1875 E, p. 259. (*Catapleura*.)
 Cretaceous; New Jersey.

***Osteopygis repandus* (Cope).**

- Cope, E. D.* 1869 M, p. 142, pl. vii, fig. 2. (*Catapleura*.)
 1868 E. (*Osteopygis*; no description.)
 1869 B, p. 734. (*Propleura*; no description.)
 1875 E, p. 259. (*Catapleura*.)
 Cretaceous; New Jersey.

***Osteopygis sopitus* (Leidy).**

- Leidy, J.* 1865 A, pp. 104, 119. (*Chelone*; not p. 105, pl. xix, fig. 5 = *Lytoloma angusta* Cope.)
Cope, E. D. 1868 E, p. 147. (*Osteopygis*.)
 1869 B, p. 735. (*Propleura*.)
 1869 K, p. 88. (*Propleura*.)
 1869 M, pp. 140, 235, pl. vii, figs. 4-7. (*Propleura*.)
 1875 E, p. 258.
Maack, G. A. 1869 A, pp. 238, 283. (*Chelone*.)
 Cretaceous; New Jersey.

Cope, E. D. 1869 B, p. 735.

- 1869 K, p. 88.
 1869 M, p. 150.
 1875 E, p. 260.
 1878 EE.
Leidy, J. 1865 A, pp. 105, 119, pl. xviii, fig. 10. (*Chelone*.)
Maack, G. A. 1869 A, p. 283. (*Chelone*.)
 Cretaceous; New Jersey, Georgia.

LYTOLOMA Cope. Type *L. angusta* Cope.

- Cope, E. D.* 1869 K, p. 88.
Baur, G. 1889 B, p. 43.
 1889 J, p. 39. (*Euclastes*.)
Case, E. C. 1897 B, pp. 44, 50.
Cope, E. D. 1867 A, p. 39. (*Euclastes*, type *E. platyops*.)
 1869 M, pp. 131, 144, 235 (*Lytoloma*); pp. 131, 148 (*Euclastes*.)
 1882 E, p. 144.
 1884 O, p. 112.
 1887 R.

- Dames, W.* 1894 A, p. 203.
Dollo, L. 1888 A.
Lydekker, R. 1889 A, p. 61.
 1889 D, p. 233.
 1889 G, p. 51.
Nicholson and Lydekker 1889 A, p. 1113.
Seeley, H. G. 1871 B. (*Glossochelys*, type *E. harriensis*.)
Wieland, G. R. 1900 B, p. 416, fig. 6.
Zittel, K. A. 1890 A, p. 526. (*Euclastes*.)

Lytoloma angusta* Cope.Cope, E. D.* 1869 K, p. 89.

1869 M, p. 145, pl. xi, fig. 1.

1875 E, p. 257.

Leidy, J. 1865 A, p. 106, pl. xix, fig. 5. (*Chelonae sopita*, in part.)

Cretaceous (Green-sand No. 5); New Jersey.

Lytoloma jeanesii* Cope.Cope, E. D.* 1869 M, p. 145.1869 B, p. 735. (*Propleura*; no description.)

1875 E, p. 257.

Cretaceous (Green-sand No. 5); New Jersey.

Lytoloma platypops* (Cope.)Cope, E. D.* 1867 A, p. 41. (*Euclastea*.)1869 B, p. 735. (*Euclastes*.)1869 K, p. 89. (*Euclastes*.)1869 M, p. 149, pl. vii, fig. 9. (*Euclastes*.)1875 E, p. 259. (*Euclastes*.)

Cretaceous (Green-sand No. 5); New Jersey.

Lytoloma* sp. indet.Clark, W. B.* 1895 A, p. 4. (*Euclastes*.)1897 A, p. 59. (*Euclastes*.)

Eocene; Maryland.

Syllumus* Cope. Type *S. crispatus* Cope.Cope, E. D.* 1896 J, p. 139.***Syllumus crispatus* Cope.***Cope, E. D.* 1896 J, p. 139.

Neocene; Virginia.

TOXOCHELYIDÆ.*Baur, G.* 1895 D, p. 569. (*Toxochelydæ*.)

1896 B, p. 564.

Hay, O. P. 1896 A, p. 106.***Toxochelys* Cope. Type *T. latiremis* Cope.***Cope, E. D.* 1873 I, p. 10.*Baur, G.* 1889 H, p. 58.

1895 D, p. 569.

Case, E. C. 1897 B, p. 28.

1893, in Williston and Case 1898 A, p. 370.

Cope, E. D. 1872 BB. (No name.)

1875 E, pp. 98, 300.

1877 D, p. 176.

Hay, O. P. 1896 A.

1898 F, p. 935.

Lydekker, R. 1889 G, p. 129.*Nicholson and Lydekker* 1889 A, p. 1104.*Wieland, G. R.* 1900 B, p. 418.*Zittel, K. A.* 1890 A, pp. 526, 534.*Case, E. C.*, in Williston and Case 1898 A, p. 371, pl. lxxix; pl. lxxx, figs. 1, 2; pl. lxxxii, figs. 1-8, 10-13; pl. lxxxiii, figs. 1-3, 6; pl. lxxxiii, figs. 2-4.*Cope, E. D.* 1872 BB, p. 129. (Description; no name.)

1875 E, pp. 98, 260, pl. viii, fig. 12.

1877 D, p. 176.

Hay, O. P. 1896 A, pls. xiv, xv.*Leidy, J.* 1873 B, p. 279, pl. xxxvi, figs. 17-21.(? *Cynocercus incisus*.)*Wagner, G.* 1898 A, p. 201, text figs. 1, 2.*Wieland, G. R.* 1900 B, p. 418.

Cretaceous (Niobrara and Pierre); Kansas.

Toxochelys serrifer* Cope.Cope, E. D.* 1875 E, p. 299.*Case, E. C.*, in Williston and Case 1898 A, p. 379, pl. lxxx, figs. 3-9; pl. lxxxii, figs. 4, 5; pl. lxxxiii, fig. 1.*Hay, O. P.* 1898 F, p. 935, figs. 1-3.

Cretaceous (Niobrara); Kansas.

Toxochelys brachyrhinus* Case.Case, E. C.*, in Williston and Case 1898 A, p. 378, pl. lxxxiv.

Cretaceous; Kansas.

Toxochelys latiremis* Cope.Cope, E. D.* 1873 I, p. 10.***Cynocercus* Cope. Type *C. incisus* Cope.***Cope, E. D.* 1882 H.

1872 F, p. 335.

1875 E, p. 96.

Hay, O. P. 1896 A.*Williston, S. W.*, in Williston and Case 1898 A, p. 368.*Zittel, K. A.* 1890 A, p. 526.This genus is not improbably identical with *Toxochelys*. If so, *Cynocercus* supersedes *Toxochelys*.***Cynocercus incisus* Cope.***Cope, E. D.* 1872 H.

1872 F, p. 335.

1872 BB, p. 129.

1874 C, p. 28.

1875 E, pp. 96, 260, pl. viii, figs. 3-5.

Williston, S. W., in Williston and Case 1898 A, p. 368, fig. 6.

Cretaceous (Niobrara); Kansas.

DESMATOCHELYIDÆ.*Williston, S. W.* 1894 D.*Williston, S. W.*, in Williston and Case 1898 A, p. 367.

DESMATOCHELYS Willist. Type *D. lowii* Willist.

Williston, S. W. 1894 D.

1898, in Williston and Case 1898 A, p. 351.

Desmatochelys lowii Willist.

Williston, S. W. 1894 D.

Wieland, G. R. 1900 B, p. 419, fig. 18.

Williston, S. W., in Williston and Case 1898 A, p. 353. pls. lxxiii-lxxviii.

Cretaceous (Niobrara); Nebraska, Kansas.

CHELONIIDÆ.

Gray, J. E., 1825, Ann. Phil. (2), x. (Cheloniadæ.)

Agassiz, L. 1857 B, p. 324. (Chelonoidæ.)

Baur, G. 1889 A.

1889 B.

1890 F, p. 486.

1891 C, p. 350.

1893 B, p. 673.

Bemmelen, J. F. 1896 A.

Boulenger, G. A. 1889 A, p. 180.

Case, E. C. 1897 B.

Cope, E. D. 1869 M, p. 153.

1871 C, p. 130.

1872 D.

1882 E, p. 143.

1884 O, p. 111.

Dollo, L. 1888 C.

Gadow, H. 1899 A, p. 37.

Goette, A. 1899 A.

Gray, J. E. 1873 B, p. 396.

Günther, A. 1888 A, pp. 457, 458.

Hay, O. P. 1896 A.

1898 F, p. 931.

Hoffmann, C. K. 1890 A.

Lydekker, R. 1889 G, p. 25.

Nicholson and Lydekker 1889 A, p. 1111.

Owen, R. 1842 A, p. 168.

Pictet, F. J. 1853 A, p. 458. (Chelonnées.)

Siebenrock, F. 1897 A.

1898 A, p. 425.

Steinmann and Döderlein 1890 A, p. 636.

Strauch, A. 1890 A, p. 37.

Zittel, K. A. 1890 A, p. 521.

CHELONIA Brongniart.

Brongniart, A., 1799, Jour. de Science, etc., v. pp. 184, 201.

Agassiz, L. 1857 B, p. 377.

Baur, G. 1889 A.

1889 F, p. 467.

1890 F, p. 486.

1896 B.

Bemmelen, J. F. 1896 B. (Chelone.)

Boulenger, G. A. 1889 A, p. 180. (Chelone.)

Cope, E. D. 1882 E, p. 144.

1884 O, p. 112.

Dollo, L. 1888 A. (Chelone.)

Fürbringer, M. 1900 A. (Chelone.)

Hoffmann, C. K. 1890 A.

Lydekker, R. 1889 A, p. 60. (Chelone.)

1889 D. (Chelone.)

1889 G, p. 27. (Chelone.)

Owen, R. 1842 A, p. 168. (Chelone.)

1849 B. (Chelone.)

Owen, R. 1849 C. (Chelone.)

1851 B, p. 1. (Chelone.)

Peters, W. 1839 B.

Pictet, F. J. 1853 A, p. 459.

Segond, L. A. 1873 A, p. 2. ("Tortue franche.")

Stannius, H. 1856 A.

Strauch, A. 1890 A, p. 37. (Chelone.)

Ubaghs, C. 1875 A.

Winckler, T. C. 1869 A.

Zittel, K. A. 1890 A, p. 523.

No species certainly belonging to this genus have yet been described from North America. For *Chelonia couperi* see Harlan, R. 1842 B, p. 144, pl. iii, figs. 2, 3; but it is probable that the bone there described and figured is not even a portion of a turtle. See also J. H. Couper in Hodson, W. B. 1846 A, p. 46, for mention of this supposed turtle.

PUPIPIGERUS Cope. Type *Chelone grandæva* Leidy.

Cope, E. D. 1869 M, p. 235.

1882 E, p. 144.

1884 O, p. 112.

Günther, A. 1888 A, p. 457.

Lydekker, R. 1889 A, p. 61.

1889 D, p. 254. (Syn. of *Lytoloma*.)1889 G, p. 52. (Syn. of *Lytoloma*.)

Nicholson and Lydekker 1889 A, p. 1113.

Zittel, K. A. 1890 A, p. 527.

Puppigerus grandævus (Leidy.)

Leidy, J. 1851 H, p. 329. (Chelonia.)

Cope, E. D. 1869 B, p. 738. (Chelone.)

1869 M, p. 153 (Chelone); p. 235 (Puppigerus).

Cope, E. D. 1875 H, p. 363.

Leidy, J. 1856 P, p. 303. (Chelone.)

Maack, G. A. 1869 A, p. 283. (Chelone.)

Miocene; New Jersey.

Puppigerus parvitectus Cope.

Cope, E. D. 1869 M, p. 155. (Chelone parvitecta.)

1867 C, p. 143. ("Sp. undet.")

1869 B, p. 738. (Chelone parviscutum; no description.)

1870 T, p. 138. (Chelone parviscutatus.)

1872 Y, p. 15.

Miocene; New Jersey, Maryland.

LEMBONAX Cope. Type *L. polemicus* Cope.

Cope, E. D. 1869 M, p. 168.

1882 J, p. 989.

Zittel, K. A. 1890 A, p. 524.

The position of this genus is very problematical.

Lembonax insularis Cope.

Cope, E. D. 1872 Y, p. 16.

Eocene; New Jersey.

Lembonax polemicus Cope.

Cope, E. D. 1869 M, p. 168.

Eocene; New Jersey.

Lembonax prophylæus Cope.

Cope, E. D. 1872 Y, p. 15.

Eocene; New Jersey.

ADOCIDÆ.

Cope, E. D. 1870 K.

Baur, G. 1888 B, p. 419.

1891 B, p. 430.

Blenz, A. 1895 A. (On Dermatemydidae.)

Cope, E. D. 1869 M (1870), p. 11.

1870 N.

1871 C, p. 568.

1871 G, p. 43.

1872 D.

Cope, E. D. 1873 E, p. 649.

1875 X, p. 17.

1882 E, p. 145.

1884 O, pp. 111, 113.

1891 F, p. 645.

Dollo, L. 1886 A, p. 78.

Lydekker, R. 1889 G, p. 129.

Nicholson and Lydekker 1889 A, p. 1106.

ADOCUS Cope. Type *Emys beatus* Leidy.

Cope, E. D. 1868 K, p. 235.

Baur, G. 1891 B, p. 428.

Cope, E. D. 1869 K, p. 88.

1869 M, pp. 128, 232, and 11.

1870 G.

1870 K.

1873 E, p. 649.

1875 E, pp. 91, 202.

1882 E, p. 145.

1884 O, p. 113.

1891 F, p. 645.

Günther, A. 1888 A, p. 457.

Lydekker, R. 1889 G, p. 129.

Nicholson and Lydekker 1889 A, p. 1106.

Steinmann and Döderlein 1890 A, p. 637.

Zittel, K. A. 1890 A, p. 536.

Adocus agilis Cope.

Cope, E. D. 1868 K, p. 235.

1869 B, p. 734.

1869 M, pp. 233, 234, and 11.

1870 G, p. 296.

1870 N, p. 549.

1871 G, p. 44.

1875 E, p. 262.

Cretaceous (Green-sand No. 5); New Jersey.

Adocus beatus (Leidy).

Leidy, J. 1865 A, pp. 107, 119, pl. xviii, figs. 1-3. (Emys.)

Baur, G. 1891 B, p. 428.

Cope, E. D. 1868 K, p. 235.

1869 B, p. 734.

1869 M, pp. 129, 233.

1870 G, p. 296.

Cope, E. D. 1870 N, p. 547.

1871 G, p. 43.

1875 E, p. 262.

Marsh, O. C. 1890 E, p. 178, pl. vii, fig. 3. (A. punctatus.)

Cretaceous (Green-sand No. 5); New Jersey.

Adocus pectoralis Cope.

Cope, E. D. 1868 K, p. 236. (Pleurosternum.)

1869 B, p. 734. (Pleurosternum.)

1869 M, p. 130 (Pleurosternum); p. 233 and 11, pl. vii, fig. 1 (Adocus).

1870 G, p. 296.

1871 G, p. 43.

1875 E, p. 262.

Cretaceous (Green-sand No. 5); New Jersey.

Adocus pravus (Leidy).

Leidy, J. 1856 P, p. 303. (Emys.)

Cope, E. D. 1868 K, p. 235.

1869 B, p. 734.

1869 M, pp. 129, 233, 234.

1870 G, p. 297.

1871 G, p. 44.

1875 E, p. 262.

Leidy, J. 1865 A, pp. 108, 120, pl. xix, fig. 1. (Emys.)

Maack, G. A. 1869 A, p. 278. (Emys parva.)

Cretaceous (Green-sand No. 5); New Jersey.

Adocus syntheticus Cope.

Cope, E. D. 1870 N, p. 548.

1870 K.

1871 G, p. 44.

1875 E, p. 262.

Cretaceous (Green-sand No. 5); New Jersey.

AGOMPHUS Cope. Type *Emys turgidus* Cope.

Cope, E. D. 1871 G, p. 46.

Baur, G. 1888 B, p. 595.

1891 B, p. 429.

Cope, E. D. 1873 E, p. 625.

1877 P. (Amphlemys, type *A. ozyternum*.)

1882 E, p. 145. (Agomphus, Amphlemys.)

- Cope, E. D. 1884 O, p. 113. (*Agomphus*, *Amphimys*.)
 1891 F, p. 645.
 Lydekker, R. 1889 G, p. 129.
 Nicholson and Lydekker 1889 A, p. 1106.
 Zittel, K. A. 1890 A, p. 536. (*Agomphus*, *Amphimys*.)

***Agomphus firmus* (Leidy).**

- Leidy, J. 1856 P, p. 303. (*Emys*.)
 Cope, E. D. 1868 K, p. 235. (*Adocus*.)
 1869 B, p. 734. (*Adocus*.)
 1869 M, pp. 125, 126. (*Emys*.)
 1870 G, p. 295. (*Adocus*.)
 1871 G, p. 46.
 1875 E, p. 262.
 Leidy, J. 1865 A, pp. 106, 119, pl. xix, fig. 2. (*Emys*.)
 Maack, G. A. 1869 A, p. 277. (*Emys*.)
 Cretaceous (Green-sand No. 5); New Jersey.

***Agomphus oxysternum* Cope.**

- Cope, E. D. 1877 P. (*Amphiemys*.)

- Baur, G. 1888 B, p. 595.
 1891 B, p. 429.
 Cope, E. D. 1878 EE. (*Amphiemys*.)
 Tertiary?; Georgia.

***Agomphus petrosus* Cope.**

- Cope, E. D. 1868 K, p. 236. (*Adocus*.)
 1869 B, p. 734. (*Adocus*.)
 1869 M, pp. 125, 126. (*Emys*.)
 1870 G, p. 295. (*Adocus*.)
 1871 G, p. 46.
 1873 E, p. 625.
 1875 E, p. 262.
 Cretaceous (Green-sand No. 5); New Jersey.

***Agomphus turgidus* Cope.**

- Cope, E. D. 1869 M, pp. 125, 127. (*Emys*.)
 1871 G, p. 46.
 1875 E, p. 262.
 Cretaceous (Green-sand No. 5); New Jersey.

BASILEMYS gen. nov. Type *Compsemys variolosus* Cope.

***Basilemys imbricarius* (Cope).**

- Cope, E. D. 1876 H, p. 257. (*Compsemys*.)
 1877 G, p. 573. (*Compsemys*.)
 Cretaceous (Laramie); Montana.

***Basilemys variolosus* (Cope).**

- Cope, E. D. 1876 H, p. 257. (*Compsemys*.)

- Cope, E. D. 1875 E, pp. 91, 261. (*C. ogmilius*.)
 1875 I. (*C. ogmilius*.)
 1875 W, p. 336. (*C. ogmilius*.)
 1877 G, p. 573. (*C. variolosus*.)
 Cretaceous (Laramie); Saskatchewan, Montana.

ZYGORAMMA Cope. Type *Z. striatula* Cope.

- Cope, E. D. 1870 N, p. 550.
 1871 G, p. 44.
 Zittel, K. A. 1890 A, p. 536.
***Zygoramma microglypha* Cope.**
 Cope, E. D. 1871 G, p. 44.
 1875 E, p. 263.
 Cretaceous (Green-sand No. 5); New Jersey.

***Zygoramma striatula* Cope.**

- Cope, E. D. 1870 N, p. 550.
 1871 G, p. 44.
 1875 E, p. 263.
 Cretaceous (Green-sand No. 5); New Jersey.

BAPTEMYS Leidy. Type *B. wyomingensis* Leidy.

- Leidy, J. 1870 E, p. 5.
 Baur, G. 1891 B, p. 429.
 Cope, E. D. 1869 M (1870), pp. 233 and ii.
 1871 Q, p. 563.
 Leidy, J. 1871 C, p. 367.
 Lydekker, R. 1889 G, pp. 129, 143.
 Nicholson and Lydekker 1889 A, p. 1106.
 Zittel, K. A. 1890 A, p. 536.
***Baptemys costilatus* (Cope).**
 Cope, E. D. 1875 C, p. 36. (*Dermatemys*?)
 1875 F, p. 96. (*Dermatemys*.)
 1875 U, p. 1016. (*Dermatemys*.)
 1877 K, p. 52, pl. xxiv, figs. 17-31. (*Dermatemys*.)
 1884 O, p. 142. (*Dermatemys*.)
 King, C. 1878 A, p. 377. (*Dermatemys*.)
 Eocene (Wasatch); N. Mexico.

***Baptemys wyomingensis* Leidy.**

- Leidy, J. 1870 E, p. 5.
 Baur, G. 1891 B, p. 429.
 Cope, E. D. 1869 M (1870), p. 233 (*Adocus wyomingensis*); p. ii (*Baptemys*.)
 1870 G, p. 297. (*Adocus wyomingensis*.)
 1873 E, p. 624. (*Dermatemys*.)
 1882 J, p. 991, fig. 9. (*Dermatemys*.)
 1884 O, p. 142. (*Dermatemys wyomingensis*.)
 King, C. 1878 A, p. 404.
 Leidy, J. 1871 C, p. 367.
 1872 B, p. 367.
 1873 B, pp. 157, 340, pl. xli, pl. xv, fig. 6.
 Eocene (Bridger); Wyoming.

***Baptemys* sp. indet.**

- Cope, E. D. 1881 D, p. 184. (*Dermatemys*.)
 Eocene (Wind River); Wyoming.

HOMOROPHUS Cope. Type *H. insuetus* Cope.

Cope, E. D. 1870 N, p. 551.

1882 E, p. 145. (Homorhophus.)

1884 O, p. 113. (Homorhophus.)

Nicholson and Lydekker 1889 A, p. 1106.

Zittel, K. A. 1890 A, p. 536.

Homorophus insuetus Cope.

Cope, E. D. 1870 N, p. 552.

1871 G, p. 44.

1875 E, p. 263.

Cretaceous (Green-sand No. 5); New Jersey.

CHELYDRIDÆ.

Swainson, 1839, Nat. Hist. and Classif. Fishes, etc., p. 116. (Chelidridæ.)

Agassiz, L. 1857 B, pp. 341, 409. (Chelydroidæ.)

Baur, G. 1889 A, p. 186.

1889 H.

1891 B, p. 428.

1891 C, p. 346.

Blenz, A. 1895 A.

Boulenger, G. A. 1889 A, p. 19.

Cope, E. D. 1871 C, p. 130. (Chelydrinæ.)

1872 B. (Chelydrinæ.)

1872 D.

1882 E, p. 143.

1884 O, pp. 111, 112.

Dollo, L. 1888 A.

Günther, A. 1888 A, p. 457.

Hay, O. P. 1896 A.

Lydekker, R. 1889 G, p. 133.

Maack, G. A. 1869 A, p. 230.

Meyer, H. 1852 B.

1856 A.

Nicholson and Lydekker 1889 A, p. 1104.

Rütimeyer, L. 1874 A, p. 16.

Siebenrock, F. 1897 A.

Steinmann and Döderlein 1890 A, p. 635.

Zittel, K. A. 1890 A, p. 532.

CHELYDRA Schweigger. Type *Testudo serpentina* Linn.

Schweigger, 1814, Prod., p. 23.

Agassiz, L. 1857 B, p. 416.

Baur, G. 1886 G, p. 740.

1889 B, p. 41.

1889 D.

1891 H, p. 58.

1892 D, p. 207.

Blenz, A. 1895 A.

Boulenger, G. A. 1889 A, p. 20.

Cope, E. D. 1869 M, p. 131.

1872 D.

1884 O, p. 112.

1888 CC, p. 305.

Dollo, L. 1888 A.

Gray, J. E. 1869 B, p. 180.

Hay, O. P. 1896 A.

1898 F, p. 937.

Hoffmann, C. K. 1890 A.

Lang and Rütimeyer, 1867 A.

Lydekker, R. 1889 G, p. 134.

Meyer, H. 1845 A, p. 12.

1852 B.

1856 A.

1865 C.

Nicholson and Lydekker 1889 A, p. 1104.

Pictet, F. J. 1853 A, p. 453.

Rütimeyer, L. 1874 A, p. 17.

Siebenrock, F. 1896 A, p. 425.

Strauch, A. 1890 A, p. 22.

Wieland, G. R. 1900 B, p. 416, fig. 5.

Winckler, T. C. 1869 A, p. 81.

Zittel, K. A. 1890 A, p. 535.

Chelydra crassa Cope.

Cope, E. D. 1888 CC, p. 306.

1882 C, p. 461. (Dermatemys sp.; no description.)

1888 C. (No description.)

Eocene (Puerco); New Mexico.

Chelydra serpentina (Linn.).

Linnaeus, C., 1858, Syst. Nat., ed. x, p. 199.

Agassiz, L. 1857, p. 417, pl.

Boulenger, G. A. 1889 A, p. 20, figs. 3, 4.

Cope, E. D. 1869 M, p. 124.

Recent: Pleistocene; Maryland.

ACHERONTEMYS Hay. Type *A. heckmani* Hay.

Hay, O. P. 1899 D, p. 23.

Acherontemys heckmani Hay.

Hay, O. P. 1899 D, p. 23, pl. vi.

Miocene (Roslyn sandstone); Washington.

ANOSTEIRIDÆ.

Baur, G. 1889 H. (Stenotrypidæ or Clinosternidæ, in part.)

1889 I, p. 276. (Pseudotrionychidæ.)

Günther, A. 1888 A, p. 457. (Pseudotrionychidæ, in part.)

Lydekker, R. 1889 G, p. 143. (Anosteirinae.)

ANOSTEIRA Leidy. Type *A. ornata* Leidy.

- Leidy, J. 1871 E, p. 102.
 Baur, G. 1889 H, p. 58.
 1889 I, p. 278.
 Cope, E. D. 1873 E, pp. 620, 649. (Anostira.)
 1873 M, p. 278. (Anostira.)
 1882 E, p. 145. (Anostira.)
 1882 J, p. 990. (Anostira.)
 1884 O, pp. 112, 127. (Anostira.)
 Dollo, L. 1886 A, p. 95. (Anostira.)
 Günther, A. 1888 A, p. 457. (Anostira.)
 Leidy, J. 1872 B, p. 270.
 1873 B, p. 174.
 Lydekker, R. 1889 G, p. 143.
 Nicholson and Lydekker 1889 A, p. 1105.
 Zittel, K. A. 1890 A, p. 534.

Anosteira ornata Leidy.

Leidy, J. 1871 E, p. 102.

- Cope, E. D. 1873 E, p. 621.
 1882 J, p. 989, fig. 7.
 1884 O, p. 128.
 Dollo, L. 1886 A, pl. II, figs. 7, 8.
 King, C. 1878 A, p. 404.
 Leidy, J. 1872 B, p. 370.
 1873 B, pp. 174, 341, pl. xvi, figs. 1-6.
 Eocene (Bridger); Wyoming.

Anosteira radulina Cope.

- Cope, E. D. 1872 V, p. 555.
 Baur, G. 1889 I, p. 273. (A. radulata.)
 Cope, E. D. 1873 E, p. 620.
 1884 O, p. 128, pl. xviii, figs. 18, 19.
 Eocene (Bridger); Wyoming.

EMYDIDÆ.

- Gray, J. E. 1825, Ann. Philos. (2), x.
 Agassiz, L. 1857 B, pp. 351, 430. (Emydoidæ.)
 Baur, G. 1891 A, p. 348.
 1892 A, p. 159.
 1893 B, p. 675.
 Boulenger, G. A. 1889 A, p. 48. (<Testudinidæ.)
 Cope, E. D. 1872 D.
 1882 E, pp. 143, 145. (Emydidæ, Cistudinidæ.)
 1884 O, pp. 111, 113. (Emydidæ, Cistudinidæ.)
 1899 A, p. 196. (Terrapenidæ.)
 Dollo, L. 1886 A. (Emydidæ, Cistudinidæ.)

- Gray, J. E. 1869 B, p. 175. (>Cistudinidæ.)
 Günther, A. 1888 A, p. 457. (<Testudinidæ.)
 Lydekker, R. 1889 G, p. 71. (<Testudinidæ.)
 Mehnert, E. 1890 A.
 Nicholson and Lydekker 1889 A, p. 1107. (<Testudinidæ.)
 Pictet, F. J. 1853 A, p. 446. (Emydides.)
 Rosenberg, E. 1891 A.
 Rüttimeyer, L. 1874 A, pp. 18, 53, 82.
 Steinmann and Döderlein 1890 A, p. 637.
 Vaillant, L. 1891 A.
 Zittel, K. A. 1890 A, p. 637.

EMYS Duméril. Type *Testudo orbicularis* Linn.

- Duméril, 1806, Zool. Anal., p. 76.
 Agassiz, L. 1857 B, p. 441.
 Baur, G. 1892 A, p. 158.
 1892 C, p. 44 (Terrapene); p. 245 (Emydes).
 1892 D, p. 208.
 Boulenger, G. A. 1889 A, p. 111.
 Cope, E. D. 1872 M, p. 463. (Palæotheca, type *P. polycypha*.)
 1872 O, p. 474. (Notomorphia, type *N. gravis*.)
 1873 E, p. 625.
 1877 K, p. 53.
 1882 J, p. 992.
 1884 O, pp. 113, 129 (Emys); p. 142 (Notomorphia).
 Hoffmann, C. K. 1890 A.
 Leidy, J. 1871 C, p. 366.
 Lydekker, R. 1889 G, p. 102.
 Mehnert, E. 1890 A.
 Owen, R. 1842 A, p. 160.
 1849 B.
 Pictet, F. J. 1853 A, p. 447.
 Pictet and Humbert 1856 A.
 Pictet and Jaccard 1860 A, p. 15.
 Rosenberg, E. 1891 A.
 Strauch, A. 1890 A, p. 14.
 Vaillant, L. 1891 A.

- Winckler, T. C. 1869 A.
 Zittel, K. A. 1890 A, p. 538.

It is not probable that any of the species here included under *Emys* really belongs to the genus as it is restricted by modern writers. The species are more closely related to *Chrysemys* and *Clemmys*.

Emys cibollensis Cope.

- Cope, E. D. 1877 K, p. 57, pl. xxvii, fig. 4; pl. xxviii, figs. 3-6.
 1875 C, p. 36. (E. stevensoniana.)
 1875 F, p. 96. (E. stevensonianus.)
 1884 O, p. 131. (Syn.? of E. euthneta.)
 Eocene (Wasatch); New Mexico.

Emys euglypha Leidy.

- Leidy, J. 1889 B, p. 97.
 1889 E, p. 27, pl. iv, fig. 1.
 1892 A.
 Pliocene (Peace Creek beds); Florida.

Emys euthneta Cope.

- Cope, E. D. 1873 E, p. 628.
 1884 O, pp. 129, 133, pl. xviii, figs. 34-42.
 King, C. 1878 A, p. 376.
 Eocene (Wasatch); Wyoming.

Emys haydeni Leidy.*Leidy, J.* 1870 S, p. 123.

Cope, E. D. 1884 O, pp. 130, 137.

Leidy, J. 1871 C, p. 366.

1872 B, p. 367. (*E. wyomingensis*, in part.)1873 B, pp. 145, 340, pl. ix, fig. 6. (*E. wyomingensis*, in part.)

Eocene (Bridger); Wyoming.

Emys latilabiata Cope.

Cope, E. D. 1872 E, p. 471.

1873 E, pp. 625, 626.

1884 O, pp. 130, 138.

Eocene (Bridger); Wyoming.

Emys lativertebralis Cope.

Cope, E. D. 1877 K, p. 53, pl. xxvii, figs. 1-3; pl. xxviii, figs. 1, 2.

1875 C, p. 36. (*E. latilabiatus*.)1875 F, p. 96. (*E. latilabiatus*.)

1882 J, p. 991, fig. 10.

1884 O, p. 129.

Eocene (Wasatch); New Mexico.

Emys megaulax Cope.

Cope, E. D. 1873 E, p. 628.

1873 E, p. 629. (*E. pachylomus*.)

1884 O, p. 132, pl. xviii, figs. 26-33.

King, C. 1878 A, p. 376. (*E. megaulax*, *E. pachylomus*.)

Eocene (Wasatch); Wyoming.

Emys petrolei Leidy.*Leidy, J.* 1868 A, p. 176.

Cope, E. D. 1869 M, p. 128.

Leidy, J. 1873 B, pp. 260, 340, pl. ix, fig. 7.

Quaternary; Texas.

Emys polycypha Cope.Cope, E. D. 1872 M, p. 463. (*Palaeotheria*.)

1873 E, pp. 625, 630.

1884 O, pp. 129, 131, pl. xviii, figs. 20-22.

Eocene (Bridger); Wyoming.

Emys septaria Cope.

Cope, E. D. 1873 E, p. 625.

NOTOMORPHA Cope.

Cope, E. D. 1872 O, p. 474.

1884 O, p. 142.

Günther, A. 1888 A, p. 457.

Notomorpha gravis Cope.

Cope, E. D. 1872 O, p. 476.

EUPACHEMYS Leidy.

Leidy, J. 1877 A, p. 232.**Eupachemys obtusa** Leidy.*Leidy, J.* 1877 A, p. 232, pl. xxxiv, figs. 4, 5.HYBEMYS Leidy. Type *H. arenarius* Leidy.*Leidy, J.* 1871 E, p. 103.

1873 B, p. 174.

Hybemys arenarius Leidy.*Leidy, J.* 1871 E, p. 103.

Cope, E. D. 1882 J, p. 992.

1884 O, pp. 130, 139, pl. xvii, figs. 9-13.

Leidy, J. 1870 E, p. 50. (*E. stevensonianus*, in part.)1871 B, p. 372. (*E. stevensonianus*, in part.)1871 C, p. 366. (*E. stevensonianus*, in part.)1873 B, pp. 140, 340, pl. ix, figs. 2, 3. (*E. wyomingensis*, in part.)

Eocene (Bridger); Wyoming.

Emys shaughnessiana Cope.

Cope, E. D. 1884 O, pp. 130, 135, pl. xxiii, figs. 3-8.

1882 J, p. 992. (Not adequately defined.)

Eocene (Bridger); Wyoming.

Emys terrestris Cope.Cope, E. D. 1872 M, p. 463. (*Palaeotheria*.)

1873 E, p. 629.

1884 O, pp. 129, 130, 131, pl. xviii, figs. 23-25.

Eocene (Bridger); Wyoming.

Emys testudinea Cope.Cope, E. D. 1872 O, p. 475. (*Notomorpha*.)

1873 E, p. 627.

1877 K, p. 58.

1884 O, pp. 129, 134, pl. xxiii, figs. 12, 13.

Eocene (Green River); Wyoming.

Emys wyomingensis Leidy.*Leidy, J.* 1869 B, p. 66.

Cope, E. D. 1873 E, pp. 625, 626.

1877 K, p. 53. (*E. wyomingensis*.)1884 O, p. 135, pl. xxiii, figs. 9-11. (*E. wyomingensis*.)Leidy J. 1870 E, p. 5. (*E. stevensonianus*, in part.)1870 S, p. 123. (*E. jeanedi*.)1871 B, p. 372. (*E. jeanedi*; *E. stevensonianus*, in part.)1871 C, p. 366. (*E. stevensoni*, in part; *E. jeanedi*.)

1872 B, p. 367.

1873 B, pp. 140, 340, in part; pl. ix, figs. 4, 5; pl. x, fig. 1, 2.

Osborn, Scott, and Speir 1878 A, p. 95.

Eocene (Bridger); Wyoming.

Type *N. gravis* Cope.Cope, E. D. 1872 O, p. 477. (*N. garmanii*.)1873 E, pp. 625, 626. (*Emys*.)

1884 O, p. 143, pl. xxiii, figs. 14-16.

Eocene (Wasatch); Wyoming.

Type *E. obtusa* Leidy.

Leidy, J. 1869 E, p. 29. ("E. rugosus".)

This species may be identical with *Testudo crassicauda*.

Phosphate beds; South Carolina.

TRACHEMYS Agassiz. Type *T. scabra* = *Testudo scripta* Schoeffl.

Agassiz, L. 1857 B, p. 434.

Baur, G. 1892 D, p. 208.

Cope, E. D. 1878 C, p. 228. (*Pseudemys*).
1878 H, p. 396. (*Pseudemys*).

Trachemys bisornata (Cope).

Cope, E. D. 1878 C, p. 228. (*Pseudemys*).
Pliocene; Texas.

Trachemys hilli (Cope).

Cope, E. D. 1878 H, p. 396. (*Pseudemys*).
Miocene (Loup Fork); Kansas.

CLEMMYS Ritgen. Type *Testudo punctata* Schoeffl = *T. guttata* Schneider.

Ritgen, F. A., 1828, Nova Acta Acad. Leop.-Car.,
xiv, 1, p. 272.

Agassiz, L. 1857 B, p. 442 (*Nanemys*); p. 443 (*Cale-
mya, Glyptemys*); p. 444 (*Actemys*).

Baur, G. 1892 C, p. 44.

Boulenger, G. A. 1889 A, p. 100.

Goette, A. 1899 A.

For additional synonymy and literature of
this genus see Boulenger, as cited.

Clemmys inaequalis Le C.

Le Conte, J., 1830, Ann. Lyc. New York, III, p. 112.
(*Testudo*.)

Cope, E. D. 1899 A, p. 194.

Boulenger, G. A. 1889 A, p. 107.

Recent; Eastern U. S.: Pleistocene (Port
Kennedy); Pennsylvania.

Clemmys percassa Cope.

Cope, E. D. 1899 A, p. 194, pl. xviii, figs. 1-19.
Pleistocene (Port Kennedy); Pennsylvania.

TERRAPENE¹ Merrem. Type *Testudo carolina* Linn.

Merrem, B. 1820, Tent. Syst. Amphib., p. 27.

Agassiz, L. 1857 B, p. 444. (*Cistudo*.)

Baur, G. 1892 A, p. 158. (*Cistudo*.)

1892 C, p. 44 (*Cistudo*); p. 245 (*Terrapene*).

Boulenger, G. A. 1889 A, p. 114. (*Cistudo*.)

Cope, E. D. 1895 H, p. 757. (*Terrapene*; *Toxaspis*,
type *T. major*.)

1899 A, p. 196. (*Toxaspis*.)

Fleming, 1822, Phil. Zool., II, p. 270. (*Cistuda*.)

Pictet and Humbert 1856 A, p. 35. (*Cistudo*.)

Zittel, K. A. 1890 A, p. 537. (*Cistudo*.)

Terrapene anguillulata (Cope).

Cope, E. D. 1899 A, p. 196, pl. xix, fig. 1. (*Tox-
aspis*.)

Pleistocene (Port Kennedy); Pennsylvania.

Terrapene eurypygia (Cope).

Cope, E. D. 1869 M, p. 124. (*Cistudo*).
Pleistocene; Maryland.

Terrapene marnochii (Cope).

Cope, E. D. 1878 C, p. 229. (*Cistudo*).
1885 S. (*Cistudo*).
1889 F. (*Cistudo*).
Pleistocene (Equus beds); Texas.

TESTUDINIDÆ.

Gray, J. E., 1825, Ann. Phil. (2), x.

Agassiz, L. 1857 B, pp. 356, 446. (*Testudinina*.)

Baur, G. 1889 H.

1889 J.

1892 A, p. 159.

1893 B, p. 677.

Boulenger, G. A. 1889 A, p. 48. (In part.)

Burckhardt, K. 1895 A.

Cope, E. D. 1882 E, p. 143.

1884 O, pp. 111, 113.

Dollo, L. 1887 A.

Duméril and Bibron, 1834, Erp. Gén., I, p. 362;
II, pp. 1-170. (*Chersites*.)

Gray, J. E. 1869 B, p. 166.

1873 C, p. 722. (*Testudinata*.)

Günther, A. 1858 A, p. 457.

Lydekker, R. 1889 G, p. 71. (In part.)

Nicholson and Lydekker 1889 A, p. 1107. (In part.)

Siebenrock, F. 1897 A.

Stannius, J. 1856 A. (*Testudinea*.)

Steinmann and Döderlein 1890 A, p. 638.

Wieland, G. R. 1900 B, p. 413.

Zittel, K. A. 1890 A, p. 539. (*Chersidæ*.)

¹*Terrapene clausa* has been reported by Dr. Leidy (1889 H, p. 6) from a cave in Pennsylvania. The species accompanying the remains, with few exceptions, yet live in the vicinity.

HADRIANUS Cope. Type *H. octonarius* Cope.

- Cope, E. D. 1872 N, p. 468.
 Baur, G. 1896 B, p. 568.
 Cope, E. D. 1873 E, p. 630.
 1877 K, p. 58.
 1882 E, p. 146.
 1882 J, p. 992.
 1884 O, pp. 113, 140.
 Hay, O. P. 1899 D, p. 22.
 Leidy, J. 1873 B, p. 137.
 Lydekker, R. 1889 G, p. 72.
 Zittel, K. A. 1890 A, p. 540. (Syn. of Testudo.)

Hadrianus allabatus Cope.

- Cope, E. D. 1872 E, p. 471.
 1873 E, p. 630.
 1884 O, p. 140, pl. xv, figs. 13-15.
 Osborn, Scott, and Speir 1878 A, p. 94.
 Eocene (Bridger); Wyoming.

Hadrianus corsoni (Leidy).

- Leidy, J. 1871 H. (Testudo.)
 Cope, E. D. 1872 M, p. 463. (Testudo hadrianus.)
 1872 N, p. 468. (Hadrianus quadratus.)
 1873 E, p. 631.
 1875 C, p. 36.
 1875 F, p. 96.
 1877 K, p. 58, pl. xxiv, fig. 36.

- Cope, E. D. 1882 J, p. 992.
 1884 O, p. 141.
 Leidy, J. 1871 B, p. 372. (*Emys carteri*.)
 1871 K, p. 228. (*E. carteri*.)
 1872 B, p. 366 (Testudo); p. 367 (*E. carteri*.)
 1872 I, p. 268. (Testudo.)
 1873 B, pp. 132, 339, pl. xi, figs. 1, 2; pl. xv, fig. 7; pl. xxix, figs. 2-4; pl. xxx, figs. 1-4 (Testudo; on pl. xv, *Emys carteri*.)
 Maack, G. A. 1869 A, p. 278. (*Emys carteri*.)
 Eocene (Bridger); Wyoming; (Wasatch); New Mexico.

Hadrianus octonarius Cope.

- Cope, E. D. 1872 N, p. 468.
 1873 E, p. 630.
 1882 J, p. 992, figs. 11-13.
 1884 O, p. 140, pl. xx.
 Hay, O. P. 1899 D, p. 23.
 Osborn, Scott, and Speir 1878 A, p. 95.
 Eocene (Bridger); Wyoming.

Hadrianus schucherti Hay.

- Hay, O. P. 1899 D, p. 22, pls. iv, v.
 Schuchert, C. 1900 A, p. 328.
 Eocene (Jackson); Alabama.

STYLEMYS Leidy. Type *S. nebrascensis* Leidy.

- Leidy, J. 1851 B, p. 172.
 Agassiz, L. 1857 B, p. 448. (No name.)
 Cope, E. D. 1869 M, p. 123.
 1875 F, p. 74.
 1882 E, p. 145.
 1884 O, pp. 113, 769.
 Leidy, J. 1871 C, p. 366.
 1873 B, p. 223.
 Lydekker, R. 1889 G, p. 93.
 Nicholson and Lydekker 1889 A, p. 1109.
 Zittel, K. A. 1890 A, p. 540. (Syn. of Testudo.)

Stylemys nebrascensis Leidy.

- Leidy, J. 1851 B, p. 172.
 Cope, E. D. 1869 M, p. 124, pl. vii, figs. 10-12. (*S. culbertsonii*, *S. nebrascensis*.)
 1874 B, p. 511.
 1884 O, p. 769.
 1891 A, p. 5.
 Haberlandt, G. 1876 A. (Testudo culbertsoni.)
 Hayden, F. V. 1858 B, p. 158. (Testudo.)
 Leidy, J. 1851 C, p. 173. (*Emys hemispherica*, Testudo lata.)
 1851 G, p. 327. (*E. oweni*.)
 1852 D, p. 34. (*E. culbertsonii*.)
 1852 E, p. 59. (*T. hemispherica*, *T. nebrascensis*, *T. oweni*, *T. culbertsonii*.)
 1852 J, p. 567, pl. xii A, figs. 1, 2 (*T. nebrascensis*); p. 568, pl. xii A, figs. 3, 4 (*T. oweni*); p. 569, pl. xii (*T. culbertsonii*); p. 570, pl. xii B, figs. 1, 2 (*T. hemispherica*); p. 572 (*T. lata*).

- Leidy, J. 1852 L, p. 65. (*T. lata*, *E. hemispherica*, *E. nebrascensis*.)
 1854 A, pp. 103, 115, pl. xxi (*T. nebrascensis*); pp. 105, 115, pl. xx; pl. xxiv, fig. 3 (*T. hemispherica*); pp. 106, 115, pl. xxi, pl. xxiv, fig. 4 (*T. oweni*); pp. 108, 115, pl. xxii, pl. xxiv, fig. 2 (*T. culbertsonii*); pp. 110, 115, pl. xxiii, pl. xxiv, fig. 1 (*T. lata*.)
 1869 A, p. 26. (Testudo, or Stylemys.)
 1871 C, p. 366.
 1873 B, pp. 224, 339, pl. xix, figs. 7, 9, 10. (Testudo.)
 Lydekker, R. 1889 G, p. 94.
 Maack, G. A. 1869 A, 245 (*T. nebrascensis*, hemispherica, oweni); p. 246 (*T. lata*, culbertsonii).
 Marsh, O. C. 1870 D. (Testudo.)
 Winckler, T. C. 1869 A, p. 145, pls. xxxi-xxxiii. (*T. nebrascensis*, culbertsoni, lata, oweni.)
 Zittel, K. A. 1890 A, p. 540, fig. 501. (Testudo.)
 Oligocene (White River); South Dakota, Colorado.

Stylemys niobrarensis Leidy.

- Leidy, J. 1858 E, p. 29. [Testudo (Stylemys).]
 Cope, E. D. 1869 M, p. 124.
 1874 B, p. 531.
 Hayden, F. V. 1858 B, p. 158. (Testudo.)
 Leidy, J. 1869 A, p. 26. (Testudo, or Stylemys.)
 1871 C, p. 366.
 1873 B, pp. 225, 340, pl. iii, figs. 4-6; pl. xix, figs. 6-8. (Testudo.)

Maack, G. A. 1869 A, p. 222. (Testudo.)
Miocene; South Dakota.

Stylemys oregonensis Leidy.

Leidy, J. 1871 M, p. 248.

Cope, E. D. 1879 B, p. 55.

1884 O, p. 770. (Syn. of *S. nebrascensis*.)

Leidy, J. 1873 B, pp. 226, 340, pl. xv, fig. 10. (Testudo.)

Miocene (John Day); Oregon.

TESTUDO Linn. Type *T. græca* Linn.

Linnaeus, C., Syst. Nat., ed. x, 1858, p. 197. (In part.)

Agassiz, L. 1857 B, p. 446. (Testudo, Xerobates.)

Baur, G. 1889 J.

1892 A.

Blenz, A. 1895 A, p. 99.

Boulenger, G. A. 1899 A, p. 149.

Cope, E. D. 1874 B, p. 511.

1878 H, p. 393. (Testudo, Xerobates.)

1882 E, p. 146.

1884 O, pp. 113, 762. (Testudo, Xerobates.)

1886 N. (Caryoderma, type *C. snovianum*.)

1889 P, p. 662. (Caryoderma.)

Flower and Lydekker 1891 A, p. 204. (Caryoderma.)

Fürbringer, M. 1900 A, p. 320.

Gray, J. E. 1869 B, p. 167.

1873 C, p. 723. (Xerobates.)

Günther, A. 1877 A.

Hoffmann, C. K. 1890 A.

Leidy, J. 1852 J, p. 566.

1854 A, pp. 101; 115.

Lydekker, R. 1889 G, p. 71.

Pictet, F. J. 1853 A, p. 443.

Pictet and Humbert 1856 A, p. 17.

Siebenrock, F. 1897 A.

1898 A.

Strauch, A. 1890 A, p. 11.

Wieland, G. R. 1900 B, p. 415, figs. 1-4.

Zittel, K. A. 1890 A, p. 540. (Testudo.)

1893 B, p. 147. (Caryoderma.)

Testudo amphithorax Cope.

Cope, E. D. 1873 S, p. 6.

1873 C C, p. 19.

1874 B, p. 511.

1884 O, pp. 762, 767, pl. lxi, fig. 4.

Oligocene (White River); Colorado.

Testudo brontops Marsh.

Marsh, O. C. 1890 E, p. 179, pl. viii.

Dana, J. D. 1896 A, p. 901, fig. 1516.

Marsh, O. C. 1897 C, pp. 523, 527, figs. 95, 96.

Oligocene (White River); South Dakota, Colorado.

Testudo crassiscutata Leidy.

Leidy, J. 1889 E, p. 31, pl. vi, figs. 4-7.

1892 A.

Pliocene; Florida.

This species may be identical with *Eupachmys obtusa*.

Testudo cultrata Cope.

Cope, E. D. 1873 S, p. 6.

1873 C C, p. 19.

1874 B, p. 511.

1884 O, pp. 762, 763, pl. lxiii, figs. 1-3.

1892 E, p. 256.

Oligocene (White River); Colorado.

Testudo cyclopygia (Cope).

Cope, E. D. 1878 H, p. 394. (Xerobates.)

Hay, O. P. 1899 G, p. 349.

Miocene (Loup Fork); Kansas.

Testudo gilbertii Hay.

Hay, O. P. 1899 G, p. 349.

Gilbert, J. Z. 1898 A, p. 143, figs. 1-4. (Xerobates undata.)

Miocene (Loup Fork); Kansas.

Testudo hexagonata Cope.

Cope, E. D. 1893 A, p. 77, pl. xxii, fig. 2.

Pleistocene (Equus beds); Texas.

Testudo klettiana Cope.

Cope, E. D. 1875 F, p. 75.

1877 K, p. 285, pl. lxvii, fig. 3.

Miocene (Loup Fork); New Mexico.

Testudo laticaudata Cope.

Cope, E. D. 1893 A, p. 75, pl. xxii, fig. 1.

Pleistocene (Equus beds); Texas.

Testudo laticunea Cope.

Cope, E. D. 1873 S, p. 6.

1873 CC, p. 19.

1874 B, p. 511.

1884 O, pp. 762, 765, pl. lxi, fig. 1.

Oligocene (White River); Colorado.

Testudo ligonia Cope.

Cope, E. D. 1873 S, p. 6.

1873 CC, p. 19.

1874 B, p. 511.

1884 O, pp. 762, 766, pl. lxi, figs. 2, 3.

Oligocene (White River); Colorado.

Testudo orthopygia (Cope).

Cope, E. D. 1878 H, p. 393. (Xerobates.)

Hay, O. P. 1899 G, p. 349.

Miocene (Loup Fork); Kansas.

Testudo pertenuis Cope.

Cope, E. D. 1892 G, p. 226.

1893 A, pp. 47, 49, fig. 1.

Pliocene (Blanco); Texas.

Testudo quadrata.

Cope, E. D. 1884 O, pp. 762, 764, pl. lxi, fig. 5.

Oligocene (White River); Colorado.

Testudo snoviana (Cope).

Cope, E. D. 1886 N. (Caryoderma.)

1889 P, p. 662, pl. xxxii. (Caryoderma.)

Trouessart, E. L. 1898 A, p. 1136. (Caryoderma.)

Williston, S. W. 1898 G, p. 132. (Testudo undata?)

Miocene (Loup Fork); Kansas.

Testudo turgida Cope.Cope, *E. D.* 1892 J, p. 127.

1892 E, p. 255.

1892 P.

1893 A, p. 47.

Pliocene (Blanco); Texas.

Testudo undata Cope.Cope, *E. D.* 1875 F, p. 74.Cope, *E. D.* 1877 K, p. 283, pl. lxvii, figs. 1, 2.

Hay, O. P. 1899 G, p. 349.

Miocene (Loup Fork); New Mexico.

Testudo sp. indet.

Leidy, J. 1860 B, p. 122, pl. xxviii, figs. 1-4.

Pleistocene; South Carolina.

Suborder TRIONYCHIA.

Unless otherwise indicated, the following authors refer to this group under the name *Trionychoidea*.

Baur, G. 1888 B, p. 736.

1889 C, p. 240. (Chilotæ.)

1890 D, p. 536. (Trionychia, Chilotæ.)

1891 B, pp. 418, 420. (Trionychia.)

Boulenger, G. A. 1889 A, pp. 5, 237.

Cope, *E. D.* 1891 N, p. 39.

1898 B, p. 62.

Duméril and Bibron, 1834, *Érp. Gén.*, i, p. 353; ii, p. 461. (Potamites.)

Gadow, H. 1898 A, p. 91. (Trionychoidea.)

Gray, J. E. 1872 A.

Günther, A. 1888 A, p. 457.

Haeckel, E. 1895 A, p. 326. (Diacostalia.)

Lydekker, R. 1889 G, p. 3.

Nicholson and Lydekker 1889 A, p. 1116.

Pictet, F. J. 1853 A, p. 455. (Trionychoidea.)

Rütimeyer, L. 1874 A, pp. 13, 51.

Seeley, H. G. 1880 B, p. 412. (Peltochelyidæ.)

Siebenrock, F. 1897 A. (Trionychoidea.)

Stannius, H. 1856 A. (Trionychoidea.)

Steinmann and Döderlein 1890 A, p. 634.

Vaillant, L. 1894 A. (Mecraspedota.)

Zittel, K. A. 1890 A, p. 513. (Trionychia.)

PLASTOMENIDÆ nom. nov.

Trionychia without fontanelles in the plastron behind the anterior border of the hyoplastron.

PLASTOMENUS Cope. Type *P. thomasi* Cope.Cope, *E. D.* 1873 M.

1873 E, p. 617.

1875 C, p. 35.

1875 E, p. 92.

1875 I.

1875 W, p. 336.

1877 K, p. 47.

1882 E, p. 144.

1884 O, pp. 112, 122.

Dollo, L. 1886 A, p. 94.

Lydekker, R. 1889 G, p. 7. (Syn. of *Trionyx*.)

Nicholson and Lydekker 1889 A, p. 1118.

Zittel, K. A. 1890 A, p. 517.

Plastomenus communis Cope.Cope, *E. D.* 1875 C, p. 35.

1875 F, p. 96.

1877 K, pp. 48, 50, pl. xxv, figs. 1-6. (Except "var. ii," p. 50, which belongs to *P. molopinus*.)

1882 C, p. 461.

1884 O, pp. 123, 126.

1888 C C, p. 301. (*P. communis*?)

King C. 1878 A, p. 377.

Eocene (Puerco? and Wasatch); New Mexico.

Plastomenus corrugatus Cope.Cope, *E. D.* 1875 C, p. 35.

1875 F, p. 96.

1875 W, p. 337.

1877 K, p. 48, pl. xxv, figs. 20-26.

1884 O, p. 123.

King, C. 1878 A, p. 377.

Eocene (Wasatch); New Mexico.

Plastomenus costatus Cope.Cope, *E. D.* 1875 E, pp. 94, 261, pl. viii, fig. 8.

1875 I.

1875 W, p. 337.

Cretaceous (Laramie); Saskatchewan.

Plastomenus fractus Cope.Cope, *E. D.* 1875 C, p. 35.

1875 F, p. 96.

1877 K, p. 49, pl. xxv, figs. 12-19.

1884 O, p. 123.

Eocene (Wasatch); New Mexico.

Plastomenus insignis Cope.Cope, *E. D.* 1874 B, p. 454.

1874 C, p. 29.

1875 E, pp. 95, 261, pl. vi, fig. 10.

Cretaceous (Laramie); Colorado.

Plastomenus lachrymalis Cope.Cope, *E. D.* 1874 O, p. 15.

1875 C, p. 35.

1875 F, p. 96.

1877 K, pp. 48, 51, pl. xxv, fig. 7.

1884 O, p. 123.

Eocene (Wasatch); New Mexico.

Plastomenus molopinus Cope.Cope, *E. D.* 1872 M, p. 461. (Anostira.)

1873 E, p. 620.

1873 M, p. 279.

1877 K, p. 50, pl. xxv, figs. 5, 6. (Var. ii of *P. communis*.)

1884 O, pp. 123, 125, pl. xviii, figs. 9-14.

?Leidy, J. 1873 B, p. 180, pl. xvi, fig. 12.
 ("Trionyx.")
 Eocene (Bridger); Wyoming: (Wasatch);
 New Mexico.

Plastomenus oedemius Cope.

Cope, E. D. 1872 M, p. 461. (Anostira.)
 1873 E, p. 619.
 1873 M.
 1877 K, p. 48.
 1884 O, pp. 123, 126, pl. xviii, figs. 15-17.
 Eocene (Bridger); Wyoming.

Plastomenus punctulatus Cope.

Cope, E. D. 1874 B, p. 453.
 1874 C, p. 29.
 1875 E, pp. 94, 261, pl. vi, fig. 9.
 1877 G, p. 573.
 Cretaceous (Laramie); Colorado, South Dakota, Montana.

Plastomenus serialis Cope.

Cope, E. D. 1877 K, pp. 48, 51, pl. xxv, figs. 8-10.
 1875 C, p. 35. (P. ? thomasi.)

Cope, E. D. 1884 O, p. 123.
 Eocene (Wasatch); New Mexico.

Plastomenus thomasi Cope.

Cope, E. D. 1872 M, p. 462. (Trionyx.)
 1873 E, p. 618 (P. thomasi); p. 619 (P. multifoveatus).
 1873 M, p. 278 (P. thomasi); p. 279 (P. multifoveatus).
 1875 C, p. 35. (P. catenatus.)
 1875 F, p. 96. (P. catenatus, P. thomasi.)
 1877 K, pp. 49, 51 (P. thomasi); p. 49, pl. xxv, fig. 11 (P. multifoveatus).
 1884 O, pp. 123, 126 (P. thomasi); pp. 123, 124, pl. xviii, figs. 2-8 (P. multifoveatus).
 Eocene (Bridger); Wyoming: (Wasatch); New Mexico.

Plastomenus trionychoides Cope.

Cope, E. D. 1872 M, p. 461. (Anostira.)
 1873 E, p. 619.
 1873 M, p. 279.
 1884 O, p. 123, pl. xviii, fig. 1.
 Eocene (Bridger); Wyoming.

TRIONYCHIDÆ.

Agassiz, L. 1857 B, pp. 329, 394.

Baur, G. 1887 B, p. 96.

1888 B, p. 736.

1889 C.

1889 H.

1889 I, p. 273.

1891 C, p. 351.

1893 A, p. 213.

Boulenger, G. A. 1889 A, p. 241.

Cope, E. D. 1869 M, p. 150.

1882 E, p. 143.

1882 J, p. 969.

1884 O, pp. 111, 112.

Cope, E. D. 1889 R, p. 865.

Dollo, L. 1884 A.

1886 A.

1888 A.

Gray, J. E. 1873 C, p. 38.

Günther, A. 1888 A, p. 457.

Hoffmann, C. K. 1890 A.

Lydekker, R. 1889 G, p. 4.

Negri, A. 1892 A.

Siebenrock, F. 1897 A.

1898 A.

Steinmann and Döderlein 1890 A, p. 634.

Strauch, A. 1890 A, p. 33. (Trionychida.)

TRIONYX Geoffroy. Type *Testudo punctata* Lacépède.

St. Hilaire, G. 1809 A, p. 1.

Baur, G. 1893 A, p. 214.

Boulenger, G. A. 1889 A, p. 242.

Cope, E. D. 1869 M, p. 151.

1873 E, p. 649.

1875 C, p. 34.

1877 K, p. 43.

1884 O, pp. 112, 117.

Fürbringer, M. 1900 A, p. 320.

Gray, J. E. 1869 B, p. 212.

1873 A.

Hoffmann, C. K. 1890 A.

Leidy, J. 1871 C, p. 367.

Lydekker, R. 1889 G, p. 7.

Maack, G. A. 1869 A.

Owen, R. 1842 A, p. 168.

1849 B.

1849 C.

Pictet, F. J. 1853 A, p. 466.

Pictet and Humbert 1856 A.

Seeley, H. G. 1890 B, p. 410.

Siebenrock, F. 1897 A.

1898 A.

Wagler, J., 1830, Nat. Syst. Amphib., p. 134.

Winckler, T. C. 1869 A.

Zittel, K. A. 1890 A, p. 515.

It is highly probable that none of the species here recorded under *Trionyx* really belongs under the genus as understood in recent works on living turtles, especially as the genus was restricted by Wagler in 1830. See Dr. Baur as above cited.

Trionyx buiei Cope.

Cope, E. D. 1869 M, pp. 151, 153.

1875 V, p. 34.

Miocene; North Carolina.

Trionyx cariosus Cope.

Cope, E. D. 1875 C, p. 35.

1875 F, p. 95.

1877 K, p. 44, pl. xxvi, figs. 5-10.

1884 O, p. 118.

Eocene (Wasatch); New Mexico.

Trionyx cellulosus Cope.

Cope, E. D. 1867 C, p. 142.

Miocene; Maryland.

Trionyx coalescens (Cope).

Cope, E. D. 1875 E, pp. 93, 261, pl. viii, figs. 6, 7.
(Plastomenus.)

1875 I. (Plastomenus.)

Lambe, L. M. 1899 A, pp. 68, 70. (Plastomenus.)
Cretaceous (Laramie); Saskatchewan.

Trionyx concentricus Cope.

Cope, E. D. 1872 M, p. 461.

1873 E, p. 617.

1884 O, pp. 118, 120, pl. xvi, figs. 3-6.

Eocene (Bridger); Wyoming.

Trionyx foveatus Leidy.

Leidy, J. 1856 F, p. 73.

Baur, G. 1891 B, p. 418.

Cope, E. D. 1869 M, p. 152.

1874 C, p. 29.

1875 E, p. 260.

1877 G, p. 573.

Leidy, J. 1856 C, p. 120.

1856 Q, p. 312.

1860 A, p. 148, pl. xi, figs. 1-3.

Marsh, O. C. 1897 C, p. 527.

Cretaceous (Laramie); Montana, Colorado.

Trionyx guttatus Leidy.

Leidy, J. 1869 B, p. 66.

Cope, E. D. 1869 M, pp. 151, 152.

1873 E, p. 617.

1875 C, p. 35. (T. uintaensis.)

1875 F, p. 95. (T. uintaensis.)

1877 K, p. 46.

1884 O, p. 119.

King, C. 1878 A, p. 404.

Leidy, J. 1871 C, p. 367.

1872 B, p. 370.

1873 B, pp. 176, 342, pl. ix, fig. 1.

Eocene (Bridger); Wyoming; (Wasatch); New Mexico.

Trionyx halophilus Cope.

Cope, E. D. 1869 G, p. 12.

1869 B, p. 735.

1869 M, p. 151, pl. vii, fig. 15.

1875 E, p. 261.

Cretaceous (Green-sand No. 4); Delaware, New Jersey, Virginia.

Trionyx heteroglyptus Cope.

Cope, E. D. 1873 M.

1873 E, p. 616.

1884 O, pp. 118, 120, pl. xvi, fig. 2.

Eocene (Bridger); Wyoming.

Trionyx leptomitrus Cope.

Cope, E. D. 1875 C, p. 35.

1875 F, p. 95.

1877 K, p. 44, pl. xxv, figs. 27-31; pl. xxvi, figs. 1-4.

1884 O, p. 118.

King, C. 1878 A, p. 377.

Eocene (Wasatch); New Mexico.

Trionyx leucopotamicus Cope.

Cope, E. D. 1891 A, p. 5, pl. i, figs. 8, 9.

Ami, H. M. 1891 A.

Oligocene (White River); N. W. Terr. of British America, North Dakota.

Trionyx lima Cope.

Cope, E. D. 1869 G, p. 12.

1869 K, p. 90.

1869 M, pp. 151, 153, pl. vii, fig. 14.

1875 H, p. 363.

Miocene; New Jersey.

Trionyx mammillaris Cope.

Cope, E. D. 1877 G, p. 573. (No description.)

Cretaceous (Laramie); Montana.

Trionyx pennatus Cope.

Cope, E. D. 1869 G, p. 12.

1869 B, p. 735.

1869 M, p. 152, pl. vii, fig. 13.

Eocene (Green-sand); New Jersey.

Trionyx priscus Leidy.

Leidy, J. 1851 H, p. 329.

Cope, E. D. 1869 B, p. 735.

1869 G, p. 12.

1869 M, pp. 151, 153.

1875 E, p. 260.

Leidy, J. 1865 A, pp. 113, 120, pl. xviii, fig. 9.

Maack, G. A. 1869 A, p. 281.

Cretaceous (Green-sand No. 4); New Jersey.

Trionyx punctiger Cope.

Cope, E. D. 1891 A, p. 5.

1893 F, p. 217 ("Trionyx sp. 2").

Oligocene (White River); South Dakota.

Trionyx radulus Cope.

Cope, E. D. 1875 C, p. 35.

1875 F, p. 95.

1877 K, p. 45, pl. xxvi, figs. 11-16.

1884 O, pp. 118, 119.

King, C. 1878 A, p. 377.

Eocene (Wasatch); New Mexico; (Bridger); Wyoming.

Trionyx scutumantiquum Cope.

Cope, E. D. 1873 E, p. 617.

1882 J, p. 988, fig. 6.

1884 O, pp. 118, 121, pl. xvi, figs. 1, 1a.

King, C. 1878 A, p. 376.

Eocene (Wasatch); Wyoming.

Trionyx uintaensis Leidy.

Leidy, J. 1872 I, p. 267.

Cope, E. D. 1884 O, p. 118.

1891 A, p. 5.

Leidy, J. 1873 B, pp. 178, 342, pl. xxix, fig. 1.

Eocene (Bridger); Wyoming.

Trionyx vagans Cope.

Cope, E. D. 1874 B, p. 453.

1874 C, p. 29.

1875 E, pp. 96, 260, pl. vi, figs. 13, 14.

1875 I, p. 1.

1877 G, p. 573.

Leidy, J. 1856 Q, p. 312. (T. foveatus.)

Cretaceous (Laramie); Colorado, Montana, Saskatchewan.

Trionyx ventricosus Cope.Cope, *E. D.* 1877 K, p. 45.

1884 O, p. 118.

Eocene (Wasatch); New Mexico.

Trionyx virginianus Clark.Clark, *W. B.* 1896 A, p. 4.

1897 A, p. 59, pl. viii, figs. 1a, 1b.

Eocene; Virginia.

Trionyx sp. indet.

Unnamed specimens of *Trionyx* have been reported as follows: Leidy, J. 1873 B, pp. 180, 342, pl. xvi, figs. 11, 12; Eocene, Wyoming. Leidy, J. 1877 A, p. 238, pl. xxxiv, fig. 3; Phosphate beds, South Carolina. Cope, E. D. 1867 C, p. 143; Miocene, Maryland. Cope, E. D. 1888 CC, p. 301; Puerco beds, New Mexico.

AXESTEMYS Hay. Type *Axestus byssinus* Cope.

Hay, O. P. 1899 G, p. 348.

The following authors call this genus *Axestus*; but this name is preoccupied in entomology.

Cope, E. D. 1872 M, p. 462.

1873 E, p. 615.

1882 E, p. 144.

1884 O, pp. 112, 116.

Lydekker, R. 1889 G, p. 7.

Nicholson and Lydekker 1889 A, p. 1118.

Zittel, K. A. 1890 A, p. 517.

Axestemys byssinus (Cope).Cope, E. D. 1872 M, p. 462. (*Axestus byssinus*; misprint.)1873 E, p. 616. (*Axestus*.)1884 O, p. 116, pl. xv, figs. 1-12. (*Axestus*.)

Hay, O. P. 1899 G, p. 348.

Eocene (Bridger); Wyoming.

Order PLESIOSAURIA.

Andrews, C. W. 1896 C.

1896 D. (*Sauropterygia*.)

1895 E.

1896 A.

Baur, G. 1896 F. (*Sauropterygia*.)1887 A, p. 485. (*Sauropterygia*.)1887 C. (*Sauropterygia*.)

1890 B.

Cope, E. D. 1869 M, p. 31. (*Sauropterygia*.)1871 B, p. 235. (*Sauropterygia*.)1872 F, p. 327. (*Sauropterygia*.)1875 E, p. 69. (*Sauropterygia*.)1879 I. (*Sauropterygia*.)1885 G, p. 246. (*Sauropterygia*.)1887 G, p. 564. (*Polycotylinae*.)1887 S, p. 334. (*Sauropterygia*.)

1888 S.

1889 R, p. 863.

1891 N, p. 39.

1892 R. (*Sauropterygia*.)1892 Z, p. 21. (*Sauropterygia*.)

1896 B, pp. 55, 66.

1900 A, p. 159.

Dames, W. 1895 A.

Deecke, W. 1895 A. (*Nothosaurus*.)Fürbringer, M. 1900 A, pp. 321, 527, 635. (*Sauropterygia*.)Gadow, H. 1898 A, p. 23. (*Plesiosauri*.)

Gegenbaur, C. 1898 A.

Geisler, G. 1895 A. (*Nothosaurus*.)Günther, A. 1886 A, p. 444. (*Sauropterygia*.)Gürlich, G. 1891 B. (*Nothosaurus*.)Haeckel, E. 1895 A, p. 335. (*Sauropterygia*.)

Hay, O. P. 1899 F, p. 682.

Hulke, J. W. 1892 A. (*Sauropterygia*.)

Huxley, T. H. 1872 A, p. 180.

Koken, E. 1893 A.

Kükenthal, W. 1890 C, p. 176.

Lydekker, R. 1889 F, p. 118. (*Sauropterygia*.)Meyer, H. 1855 A. (*Nothosaurus*.)Nicholson and Lydekker 1889 A, p. 1067. (*Sauropterygia*.)

Owen, R. 1840 E.

1847 E.

1860 A, p. 159. (*Sauropterygia*.)1860 E, p. 211. (*Sauropterygia*.)1866 A, p. 16. (*Sauropterygia*.)1883 A. (*Sauropterygia*.)Quenstedt, F. A. 1852 A, p. 130. (*Plesiosauri*.)1885 A, p. 208. (*Plesiosauri*.)

Seeley, H. G. 1874 A.

1892 B, p. 121. (*Sauropterygia*.)Steinmann and Döderlein 1890 A, p. 625. (*Sauropterygia*.)Woodward, A. S. 1898 B, p. 159. (*Sauropterygia*.)Zittel, K. A. 1890 A, p. 473. (*Sauropterygia*.)

PLESIOSAURIDÆ.

Fürbringer, M. 1900 A.

Hoffmann, C. K. 1890 B.

Hulke, J. W. 1892 A.

Huxley, T. H. 1858 B.

Lydekker, R. 1889 F, p. 120.

Nicholson and Lydekker 1889 A, p. 1074.

Owen R. 1866 A.

Sauvage, H. E. 1878 A.

Seeley, H. G. 1892 B.

Steinmann and Döderlein 1890 A, p. 628.

Zittel, K. A. 1890 A, p. 486.

PLESIOSAURUS Conybeare. Type *P. dolichodeirus* Conybeare.

Conybeare, W. D., 1821, Trans. Geol. Soc., v, pt. 2, p. 560.

Andrews, C. W. 1895 B.

1895 C.

1895 A.

Barrett, L. 1859 A.

Buckland, W. 1837 A, i, p. 157; ii, pls. xvi-xix.

Conybeare, W. D. 1824 A, p. 119.

Cope, E. D. 1870 D, p. 274. (*Taphrosaurus*, type *P. lockwoodii*.)

1875 E, pp. 83, 256.

1879 A, p. 34.

Cuvier, G. 1834 A, x, pp. 445-470, pls. cclix, cclx.

Dames, W. 1895 A.

Fürbringer, M. 1900 A, p. 326.

Hulke, J. W. 1883 A.

1892 A.

Huxley, T. H. 1872 A, p. 182.

Kiprijanoff, W. 1882 A.

Lydekker, R. 1899 F, pp. viii, 251.

Marsh, O. C. 1877 E.

Newberry, J. S. 1875 A, p. 18.

Owen, R. 1840 A, p. 49.

1840 E.

1845 B, p. 275, pls. lxxiii, lxxiv.

1851 B, p. 58.

1860 A, p. 160.

1860 E, p. 233.

1864 B, p. 1.

1865 A, p. 1.

1883 A.

Pictet, F. J. 1853 A, p. 534.

Quenstedt, F. A. 1852 A, p. 130.

1885 A, p. 208.

Sauvage, H. E. 1878 A.

Seeley, H. G. 1874 A.

1887 C.

1888 A.

1892 B.

1896 A.

Sollas, W. J. 1882 A.

Steinmann and Döderlein 1890 A, p. 629.

Williston S. W. 1893 A.

1894 A.

Winckler, T. C. 1873 A.

Woodward, A. S. 1888 I, p. 277.

1898 B, p. 165.

Zittel, K. A. 1890 A, p. 486.

***Plesiosaurus brevifemur* Cope.**

Cope, E. D. 1875 E, p. 256.

1869 M, p. 41, figs. 13-15; p. 43, in part (*Cimoliasaurus magnus*.)

Cretaceous (Green-sand No. 5); New Jersey.

***Plesiosaurus gouldii* Willist.**

Williston, S. W. 1897 C.

Cretaceous (Comanche); Kansas.

***Plesiosaurus gulo* Cope.**

Cope, E. D. 1872 BB.

1872 GG.

1874 C, p. 28.

1875 E, pp. 52, 88, 256.

Cretaceous (Niobrara); Kansas.

***Plesiosaurus lockwoodii* Cope.**

Cope, E. D. 1869 M, p. 40.

1870 D, p. 274. (*Taphrosaurus*.)

1875 E, p. 256. (*Plesiosaurus*.)

Cretaceous (Clay No. 1); New Jersey.

***Plesiosaurus mudgei* Cragin.**

Cragin, F. W. 1894 A, p. 69, pl. i, figs. 1-3, 47.

Cretaceous (Neocomian); Kansas.

***Plesiosaurus shirleyensis* Knight.**

Knight, W. C. 1900 A, p. 115, figs. A and C.

Jurassic (Shirley); Wyoming.

PANTOSAURUS Marsh. Type *Parasaurus striatus* Marsh.

Marsh, O. C. 1893 J, p. 159. (To replace *Parasaurus* Marsh, preoccupied.)

1891 F, p. 338. (*Parasaurus*; no definition.)

1895 A, p. 406.

***Pantosaurus striatus* Marsh.**

Marsh, O. C. 1893 J, p. 159.

Marsh, O. C. 1891 F, p. 338. (*Parasaurus*; no description.)

1895 A, p. 406, fig. 3.

1897 C, p. 485, fig. 32.

Jurassic; Wyoming.

PIRATOSAURUS Leidy. Type *P. plicatus* Leidy.

Leidy, J. 1865 A, p. 29.

Zittel, K. A. 1890 A, p. 498.

A genus of uncertain affinities.

***Piratosaurus plicatus* Leidy.**

Leidy, J. 1865 A, pp. 29, 116, pl. xix, fig. 8.

Cope, E. D. 1869 M, p. 56.

1875 E, p. 254.

Leidy, J. 1865 D, p. 68.

Cretaceous; Minnesota.

NOTHOSAUROPS Leidy. Type *N. occiduus* Leidy.

Leidy, J. 1870 U.

Cope, E. D. 1874 C, p. 28. (Syn. of *Plesiosaurus*.)

1875 E, p. 256. (Syn. of *Plesiosaurus*.)

Leidy, J. 1873 B, p. 287. (*Nothosaurus*.)

Zittel, K. A. 1890 A, p. 600. (Syn.? of *Champsosaurus*.)

A genus of uncertain position.

Nothosaurops occiduus Leidy.

Leidy, J. 1870 U.

Cope, E. D. 1874 C, p. 28. (*Plesiosaurus*.)

1875 E, p. 256. (*Plesiosaurus*.)

Leidy, J. 1873 B, pp. 287, 345, pl. xv, figs. 11-13. (*Nothosaurus*.)

Cretaceous (Laramie); S. Dakota.

MEGALNEUSSAURUS Knight. Type *Cimoliosaurus rex* Knight.

Knight, W. C. 1898 B, p. 378.

Megalneussaurus rex Knight.

Knight, W. C. 1898 A. (*Cimoliosaurus*.)

1898 B, p. 379, figs. 1-3.

Jurassic; Wyoming.

ELASMOSAURIDÆ

Cope, E. D. 1869 M, p. 47.

1875 E, pp. 69, 78.

Fürbringer, M. 1900 A, pp. 322, 527.

Seeley, H. G. 1892 B, pp. 134, 151.

POLYCOTYLUS Cope. Type *P. latipinnis* Cope.

Cope, E. D. 1869 D.

1869 M, p. 34.

1871 D, p. 336.

1872 F, p. 335.

1875 E, p. 70.

1887 G, p. 564.

1888 S.

Lydekker, R. 1889 C, p. 52. (Syn. of *Cimoliasaurus*.)

Nicholson and Lydekker 1889 A, p. 1077. (Syn. of *Cimoliasaurus*.)

Sauvage, H. E. 1876 A.

1878 A, p. 35.

Seeley, H. G. 1892 B, p. 135.

Zittel, K. A. 1890 A, p. 491. (Syn. of *Cimoliasaurus*.)

Polycotylus latipinnis Cope.

Cope, E. D. 1869 D.

1869 M, p. 36, pl. i, figs. 1-12.

1871 D, p. 388.

1872 F, pp. 320, 335.

1874 C, p. 27.

1875 E, pp. 45, 72, 255, pl. vii, figs. 7, 7a

Leidy, J. 1873 B, p. 279.

Cretaceous (Niobrara); Kansas, Nebraska

PIPTOMERUS Cope. Type *P. megaloporus* Cope.

Cope, E. D. 1887 G, p. 564.

Lydekker, R. 1889 C, p. 182.

Seeley, H. G. 1892 B, pp. 136, 138.

Zittel, K. A. 1890 A, p. 495.

Piptomerus hexagonus Cope.

Cope, E. D. 1887 G, p. 565.

Cretaceous (Fox Hills); N. Mexico.

Piptomerus megaloporus Cope.

Cope, E. D. 1887 G, p. 564.

Cretaceous (Fox Hills); N. Mexico.

Piptomerus microporus Cope.

Cope, E. D. 1887 G, p. 565.

Cretaceous (Fox Hills); N. Mexico.

URONAUTES Cope. Type *U. cetiformis* Cope.

Cope, E. D. 1876 I, p. 345.

Lydekker, R. 1889 F, p. 182.

Seeley, H. G. 1892 B, p. 136.

Zittel, K. A. 1890 A, p. 498.

Uronautes cetiformis Cope.

Cope, E. D. 1876 I, p. 346.

Cretaceous (Fox Hills); Montana.

Uronautes sp. indet.

Cope, E. D. 1887 G, p. 566.

Cretaceous (Fox Hills); New Mexico.

TRINACROMERUM Cragin. Type *T. bentonianum* Cragin.

- Cragin, F. W. 1888 A.
 Cope, E. D. 1894 B, p. 111.
 Cragin, F. W. 1891 A.
 Lydekker, R. 1889 F, p. 180. (Syn. of *Cimoliasaurus*.)
 Nicholson and Lydekker 1889 A, p. 1079. (*Trinacromerum*.)

- Seeley, H. G. 1892 B, pp. 136, 151.
 Zittel, K. A. 1890 A, p. 496.

Trinacromerum bentonianum Cragin.

- Cragin, F. W. 1888 A.
 1891 A.
 Cretaceous (Benton); Kansas.

ELASMOSAURUS Cope. Type *E. platyrus* Cope.

- Cope, E. D. 1868 A.
 1868 H.
 1869 A, p. 266.
 1869 K, p. 86.
 1869 M, pp. 40, 44, 47, and 11.
 1870 C.
 1871 D, p. 391.
 1872 F, p. 336.
 1875 E, pp. 75, 78, 255.
 1877 G, p. 577.
 1879 I.
 1888 S, p. 725.
 Hulke, J. W. 1893 A.
 1892 A.
 Leidy, J. 1851 G, p. 326. (*Discosaurus*, type *D. vetustus* Leidy.)
 1870 A. (*Discosaurus*=*Elasmosaurus*.)
 1870 C.
 1870 H, p. 18.
 1870 I, p. 18.
 Lydekker, R. 1888 E.
 1889 C, p. 53. (Syn. of *Cimoliasaurus*.)
 1889 F, p. 180. (Syn. of *Cimoliasaurus*.)
 Nicholson and Lydekker 1889 A, p. 1077. (Syn. of *Cimoliasaurus*.)
 Sauvage, H. E. 1878 A.
 Seeley, H. G. 1892 B, p. 134.
 Zittel, K. A. 1890 A, p. 491. (Syn. of *Cimoliasaurus*.)

Elasmosaurus intermedius Cope.

- Cope, E. D. 1894 B, p. 112.
 Cretaceous (Pierre); S. Dakota.

Elasmosaurus orientalis Cope.

- Cope, E. D. 1868 M.
 1869 A, p. 266.
 1869 B, p. 733.

CIMOLIASAURUS Leidy. Type *C. magnus* Leidy.

- Leidy, J. 1851 G, p. 325.
 Cope, E. D. 1868 H.
 1869 A, p. 266.
 1869 K, p. 86.
 1869 M, p. 40.
 1870 B.
 1870 C.
 1871 D, p. 393.
 1875 E, pp. 75, 78, 255.
 1888 S, p. 725.
 Fürbringer, M. 1900 A, p. 335.
 Koken, E. 1896 A, p. 9.
 Leidy, J. 1851 G, p. 326. (*Discosaurus*, type *D. vetustus*.)
 1854 B. (*Brimosaurus*, type *B. grandis*.)

- Cope, E. D. 1869 K, p. 87.
 1869 M, pp. 42, 53, pl. II, fig. 10.
 1870 C.
 1875 E, p. 255.
 1877 G, pp. 567, 578.
 1877 U.
 Leidy, J. 1870 I, p. 22. (*Discosaurus*.)
 Cretaceous; New Jersey, Upper Missouri region.

Elasmosaurus platyrus Cope.

- Cope, E. D. 1868 A.
 1868 D.
 1869 A, p. 266.
 1869 K, p. 87.
 1869 M, p. 47, text figs. 7-12; pl. II, figs. 1-9, pl. III.
 1870 B.
 1871 C, p. 47.
 1871 D, p. 393.
 1872 F, pp. 320, 336.
 1875 E, pp. 44, 79, 256.
 1877 G, p. 578.
 1888 S.
 Leidy, J. 1870 A.
 1870 G, p. 10.
 1870 I, pp. 18, 22.
 Lydekker, R. 1889 F, p. 181. (*Cimoliasaurus*.)
 Cretaceous (Niobrara); Kansas.

Elasmosaurus serpentinus Cope.

- Cope, E. D. 1877 G, p. 578.
 1877 U.
 Cretaceous (Niobrara); Nebraska.

Elasmosaurus sp. indet.

- Cope, E. D. 1894 B, p. 113.
 Cretaceous (Niobrara); Dakota.

- Leidy, J. 1865 A, pp. 22, 25, 76, 103, 116. (*Cimoliasaurus*, *Discosaurus*.)
 1870 A. (*Discosaurus*.)
 1870 B. (*Discosaurus*, *Cimoliasaurus*)
 1870 G. (*Brimosaurus*.)
 1870 H, p. 21.
 1870 I. (*Discosaurus*.)
 Lydekker, R. 1888 E.
 1889 C, p. 53.
 1889 F, pp. viii, 180.
 Nicholson and Lydekker 1889 A, p. 1077.
 Seeley, H. G. 1892 B, p. 135.
 Williston, S. W. 1890 A.
 Woodward, A. S. 1898 B, p. 169.
 Zittel, K. A. 1890 A, p. 491.

Cimoliasaurus grandis (Leidy).

- Leidy, J.* 1854 B, pl. II, figs. 1-3. (Brimosauros.)
Cope, E. D. 1869 A, p. 266.
 1869 M, pp. 43, 54.
 1870 C.
 1871 D, p. 400.
 1875 E, p. 255.
Leidy, J. 1870 G, p. 10. (Brimosauros.)
 1870 I, p. 22. (Discosauros.)
 Cretaceous; Arkansas.

Cimoliasaurus laramiensiis Knight.

- Knight, W. C.* 1900 A, p. 117, figs. B and D.
 Jurassic (Shirley); Wyoming.

Cimoliasaurus magnus Leidy.

- Leidy, J.* 1851 G, p. 325.
Cope, E. D. 1869 A, p. 266.
 1869 B, p. 733.
 1869 K, p. 87.
 1869 M, pp. 42, 43 (part), fig. 16; not figs. 13-15.
 1870 B.
 1870 C.
 1875 E, p. 255.
Leidy, J. 1854 B, pl. II, figs. 4-6.
 1865 A, pp. 25, 116, pl. v, figs. 13-19; pl. vi, figs. 1-18.
 1870 G, p. 10.
 1870 I, p. 22. (Discosauros.)
Lydekker, R. 1889 F, p. 211.
 Cretaceous (Green-sand No. 5); New Jersey.

Cimoliasaurus planior (Leidy).

- Leidy, J.* 1870 I, pp. 20, 22. (Discosauros.)
Cope, E. D. 1875 E, p. 255.
Leidy, J. 1865 A, p. 23, par. 2, pl. v, figs. 10-12. (Discosauros vetustus.)
 1865 D, p. 68. (Discosauros vetustus, part.)
 Cretaceous; Mississippi.

Cimoliasaurus snowii Williston.

- Williston, S. W.* 1890 A, p. 262.
Cope, E. D. 1894 B, p. 109, figure.
Williston, S. W. 1890 D, figs. 1, 2.
 Cretaceous (Niobrara); Kansas.

Cimoliasaurus vetustus (Leidy).

- Leidy, J.* 1851 G, p. 326. (Discosauros.)
Cope, E. D. 1869 A, p. 266. (C. magnus, *vide* Leidy.)
 1869 M, p. 42.
 1870 B, p. 141. (Discosauros.)
 1875 E, p. 255.
Leidy, J. 1865 A, pp. 22, 116, pl. iv, figs. 13-18, pl. v, figs. 1-9. (Discosauros.)
 1865 D, p. 68, in part. (Discosauros.)
 1870 I, p. 21. (Discosauros.)
Lydekker, R. 1889 F, p. 211. (Syn. of C. magnus.)
 Cretaceous; Alabama, New Jersey.
 The vertebrae figured on pl. v, figs. 4, 5, 6, of *Leidy* 1865 A, must be regarded as the type of this species.

Cimoliasaurus sp. indet.

- Williston, S. W.* 1894 B, p. 2, pl. i, figs. 1, 2.
 Cretaceous; Kansas.

OROPHOSAURUS Cope. Type *O. pauciporus* Cope.

- Cope, E. D.* 1887 G, p. 564.
 1894 B, p. 311.
Lydekker, R. 1889 F, p. 182.
Seeley, H. G. 1892 B, p. 136.
Zittel, K. A. 1890 A, p. 491. (Syn. of Cimoliasaurus.)

Orophosaurus pauciporus Cope.

- Cope, E. D.* 1887 G, p. 565.
 Cretaceous (Fox Hills); New Mexico.

EMBAPHIAS Cope. Type *E. circulosus* Cope.

- Cope, E. D.* 1894 B, p. 111.

Embaphias circulosus Cope.

- Cope, E. D.* 1894 B, p. 111.
 Cretaceous (Pierre); South Dakota.

OLIGOSIMUS Leidy. Type *O. grandævus* Leidy.

- Leidy, J.* 1872 E, p. 39.
 1873 B, p. 286.
Lydekker, R. 1889 C, p. 180. (Syn. ? of Cimoliasaurus.)
Seeley, H. G. 1892 B, p. 136.
Zittel, K. A. 1890 A, p. 495. (Oligosomus.)

Oligosimus grandævus Leidy.

- Leidy, J.* 1872 E, p. 39.
 1873 B, pp. 286, 345, pl. xvi, figs. 18, 19.
 Cretaceous?; Wyoming.

Order RHYNCHOCEPHALIA Günther.

- Günther, A.* 1867 A, p. 626.
Ammon, L. 1885 A. (Homocosauros.)
Andrews, A. 1893 A.
Baur, G. 1886 E, p. 635.
 1886 E.

- Baur, G.* 1886 G, pp. 685, 738.
 1886 M, p. 304.
 1887 A, p. 486.
 1887 C.
 1889 B, p. 45.

Baur, G. 1894 A, p. 321.

1895 E.

1900 A, p. 160.

Baur and Case 1897 A.

Boulenger, G. A. 1889 A, p. 1.

1891 B.

Burckhardt, R. 1895 A.

Case, E. C. 1898 A, p. 71.

Cope, E. D. 1869 M, p. 33.

1871 B.

1878 G, p. 306.

1880 A, p. 38.

1885 G, p. 246.

1887 E.

1887 S, p. 334.

1889 R, p. 863.

1891 N, p. 45.

1892 R.

1898 B, pp. 56, 73.

Credner, H. 1888 A.

Fürbringer, M. 1888 A.

Fürbringer, M. 1900 A, pp. 276, 531, 589.

Gadow, H. 1898 A, p. 18. (Rhynchocephali.)

Gaupp, E. 1894 A.

Gegenbaur, C. 1898 A.

Haeckel, E. 1895 A, p. 305.

Hoffmann, C. K. 1890 B.

Huxley, T. H. 1872 A, p. 194.

Lortet, L. 1892 A, p. 29.

Lydekker, R. 1888 B, p. 291.

Meyer, H. 1856 B. (Protosaurus.)

1860 D, p. 106. (Homosaurus.)

Mivart, St. G. 1886 A, p. 448.

Nicholson and Lydekker 1889 A, p. 1131.

Osborn, H. F. 1900 A, p. 1.

Perrin, A. 1895 A.

Siebenrock, F. 1894 B. (Hatteria.)

Steinmann and Döderlein 1890 A, p. 619.

Wagner, A. 1853 A, p. 254.

Woodward, A. S. 1898 B, p. 183.

Zittel, K. A. 1890 A, pp. 451, 563.

SPHENODON Gray. Type *Hatteria punctata* Gray.

Gray, J. E., 1831, Zool. Miscell., p. 13.

On account of the importance of the genus *Sphenodon* in ascertaining the relationship of the reptiles, the following references are given to the literature of this animal:

Ammon, L. 1885 A. (Hatteria.)

Andrea, A. 1893 A. (Hatteria.)

Baur, G. 1886 A.

1886 B.

1886 K.

1886 L.

1891 C, p. 345.

1892 D, p. 207.

Bayer, F. 1885 A.

Boulenger, G. A. 1889 A, p. 2.

Burckhardt, R. 1900 A.

Credner, H. 1888 A.

Dollo, L. 1891 A.

Fürbringer, M. 1900 A.

Gadow, H. 1896 A, p. 37.

Günther, A. 1867 A. (Hatteria.)

Hay, O. P. 1898 F, p. 945.

Howes and Swinerton 1900 A, p. 516.

Huxley, T. H. 1869 C.

1887 A.

Kehrer, G. 1886 A, p. 83.

Osawa, G. 1898 A. (Hatteria.)

Osborn, H. F. 1900 A, p. 1.

Siebenrock, F. 1894 B.

Tomes, C. 1898 A, p. 273.

Zittel, K. A. 1890 A, p. 583.

CHAMPSOSAURIDÆ.

Cope, E. D. 1884 O, p. 106.

Boulenger, G. A. 1891 B, p. 169.

Burckhardt, R. 1900 A, p. 534.

Cope, E. D. 1876 I, p. 350. (Choristodera.)

1882 J, p. 981. (Choristodera.)

1884 BB.

1891 N, p. 45. (Choristodera.)

Cope, E. D. 1898 B, p. 73. (Choristodera.)

Dollo, L. 1884 C, p. 160. (Simædosauria.)

Lemoine, V. 1884 A.

1884 B. (Simædosauria.)

1885 A. (Simædosauria.)

Nicholson and Lydekker 1889 A, p. 1133.

Zittel, K. A. 1890 A, p. 599.

CHAMPSOSAURUS Cope. Type *C. profundus* Cope.

Cope, E. D. 1876 I, p. 348.

Andrea, A. 1893 A, p. 33.

Baur, G. 1887 C, p. 100.

1895 E.

Cope, E. D. 1883 E.

1884 O, p. 104.

1888 C.

Dollo, L. 1884 C, p. 154. (Simædosaurus.)

1885 A.

1891 A.

1893 B, p. 79.

Fürbringer, M. 1900 A, p. 291.

Koken, E. 1886 A.

Lemoine, V. 1884 A. (Simædosaurus.)

1884 B. (Simædosaurus.)

1885 A. (Simædosaurus.)

1885 B. (Simædosaurus.)

1893 A, p. 364. (Simædosaurus.)

Nicholson and Lydekker 1889 A, p. 1133.

Steinmann and Döderlein 1890 A, p. 622.

Woodward, A. S. 1898 B, p. 189.

Zittel, K. A. 1890 A, p. 600.

Champsosaurus annectens Cope.

Cope, E. D. 1876 I, p. 351.

1877 G, p. 573.

Cretaceous (Laramie); Montana.

Champsosaurus australis Cope.*Cope, E. D.* 1881 T.

1884 O, p. 107, pl. xxiii b, figs. 1-4.

1888 CC, p. 301.

Eocene (Puerco); N. Mexico.

Champsosaurus brevicollis Cope.*Cope, E. D.* 1876 I, p. 352.

1877 G, p. 573.

Cretaceous (Laramie); Montana.

Champsosaurus profundus Cope.*Cope, E. D.* 1876 I, p. 350.

1877 G, p. 573.

Cretaceous (Laramie); Montana.

Champsosaurus puercensis Cope.*Cope, E. D.* 1882 E, p. 195.

1884 O, p. 107, pl. xxiii b, figs. 5-10.

1888 CC, p. 301.

Eocene (Puerco); N. Mexico.

Champsosaurus saponensis Cope.*Cope, E. D.* 1882 E, p. 196.

1884 O, p. 109, pl. xxiii, figs. 11-22.

1888 CC, p. 301.

Eocene (Puerco); N. Mexico.

Champsosaurus vaccinsulensis Cope.*Cope, E. D.* 1876 I, p. 353.

1877 G, p. 573.

Cretaceous (Laramie); Montana.

RHADOPELIX Cope. Type *R. longispinis* Cope.*Cope, E. D.* 1869 M, p. 169.

The position of this genus in the zoological system is problematical.

Rhadopelix longispinis Cope.*Cope, E. D.* 1869 M, pp. 170, 245, fig. 46.

1866 G. (Pterodactylus; no description.)

1870 I, p. 445.

Triassic; Pennsylvania.

ISCHYROTHERIUM Leidy. Type *I. antiquum* Leidy.*Leidy, J.* 1856 I, p. 89.*Cope, E. D.* 1869 M, p. 38. (*Ischyrosaurus*.)1874 R. (*Ischyrosaurus*.)1875 E, p. 256. (*Ischyrosaurus*.)1884 O, p. 106. (*Ischyrosaurus*.)*Leidy, J.* 1874 A.*Zittel, K. A.* 1890 A, p. 498. (*Ischyrosaurus*.)

The position of this genus is uncertain.

Ischyrotherium antiquum Leidy.*Leidy, J.* 1856 I, p. 89.*Cope, E. D.* 1869 M, p. 39. (*Ischyrosaurus*.)1874 C, p. 28. (*Ischyrosaurus*.)1875 E, p. 256. (*Ischyrosaurus*.)*Leidy, J.* 1860 A, p. 150, pl. x, figs. 8-17.

1869 A, p. 414.

Lepsius, G. R. 1881 A, p. 185. (Syn. of *Prorastomus sirenoidea*.)**Order ICHTHYOSAURIA** Blainville.*Agassiz, L.* 1843 A, p. 84. (*Ichthyosauria*.)*Bauer, F.* 1898 A, p. 283.*Baur, G.* 1886 F. (*Ichthyopterygia*.)1887 A. (*Ichthyopterygia*.)1887 C, p. 96. (*Ichthyopterygia*.)1887 D. (*Ichthyopterygia*.)1887 F. (*Ichthyopterygia*.)1890 B. (*Ichthyosauria*.)1891 C, p. 354. (*Ichthyosauria*.)1895 E. (*Ichthyosauria*.)*Cope, E. D.* 1869 M, pp. 26, 27. (*Ichthyopterygia*.)1871 B. (*Ichthyopterygia*.)1887 S, p. 333. (*Ichthyopterygia*.)1888 B. (*Ichthyosauria*.)1889 R, p. 863. (*Ichthyopterygia*.)1892 R. (*Ichthyopterygia*.)1895 C. (*Ichthyosauria*.)1898 B, pp. 55, 64. (*Ichthyopterygia*.)1900 A, p. 159. (*Ichthyopterygia*.)*Dames, W.* 1893 A. (*Ichthyopterygia*.)

1895 B, p. 1045. ("Ichthyosaurier.")

Fraas, E. 1891 A.*Fürbringer, M.* 1900 A. (*Ichthyopterygia*.)*Gadow, H.* 1898 A, p. 24.*Gaudry, A.* 1890 A, p. 179.*Gegenbaur, C.* 1864 A, p. 31. (*Enaliosauria*.)1865 B, p. 51. (*Enaliosauria*.)

1898 A.

Haeckel, E. 1895 A, p. 337. (*Ichthyopterygia*.)*Hay, O. P.* 1899 F, p. 682. (*Ichthyosauria*.)*Hoffmann, C. K.* 1890 B. (*Ichthyosauria*.)*Hulke, J. W.* 1883 A. (*Ichthyosauria*.)1892 A. (*Ichthyosauria*.)*Huxley, T. H.* 1872 A, p. 208. (*Ichthyosauria*.)*Jaeger, G. F.* 1828 A. (*Ichthyosauria*.)*Conybeare, Trans. Geol. Soc., London* (1), v, pt. 2, p. 563. (*Ichthyosauria*.)*Küenthal, W.* 1890 C, p. 176. (*Ichthyosauria*.)1891 C. (*Ichthyosauria*.)1893 A, p. 54. (*Ichthyosauria*.)*Lydekker, R.* 1888 D. (*Ichthyopterygia*.)1889 F, p. 1. (*Ichthyopterygia*.)1892 B. (*Ichthyosauria*.)*Marsh, O. C.* 1879 A, p. 85. (*Sauranodonta*.)1880 E, p. 491. (*Baptanodonta*.)*Nicholson and Lydekker* 1889 A, p. 1120 (*Ichthyopterygia*); p. 1124 (*Ichthyosauria*.)*Owen, R.* 1838 B, p. 660. (*Ichthyosauri*.)1860 A, p. 159. (*Ichthyopterygia*.)1860 E, p. 198. (*Ichthyopterygia*.)1866 A. (*Ichthyopterygia*.)

- Owen, R. 1881 A. (Ichthyopterygia.)
 Quenstedt, F. A. 1852 A, p. 120. (Ichthyosauri.)
 1885 A, p. 194. (Ichthyosauri.)
 Rohon, J. V. 1899 B, p. 13. ("Ichthyosaurier.")
 Seeley, H. G. 1891 A. (Ichthyosauria.)

- Seeley, H. G. 1892 B, p. 119. (Ichthyosauria.)
 1900 A, p. 645. (Ichthyosauria.)
 Steinmann and Döderlein 1890 A, p. 640. (Ichthyopterygia.)
 Woodward, A. S. 1898 B, p. 176. (Ichthyopterygia.)
 Zittel, K. A. 1890 A, p. 451. (Ichthyosauria.)

PROTEOSAURIDÆ nom. nov.

This family has hitherto borne the name *Ichthyosauridae*. The revival of the generic name *Proteosaurus* for the genus hitherto called *Ichthyosaurus*, requires a corresponding change in the family name. The following writers employ the name *Ichthyosauridae*.

- Bauer, F. 1898 A, p. 283.
 1900 A, p. 574.
 Baur, G. 1887 D.
 Dames, W. 1895 B, p. 1045.
 Fraas, E. 1891 A.
 1892 B.
 Fürbringer, M. 1900 A, p. 627.
 Günther, A. C. 1886 A, p. 442.
 Kiprijanoff, W. 1881 A.
 Lydekker, R. 1889 F, p. 6.
 Nicholson and Lydekker 1889 A, p. 1124.
 Steinmann and Döderlein 1890 A, p. 642.

PROTEOSAURUS Home. Type *Ichthyosaurus platyodon* Conybeare.

Home, E. 1819 A.

Unless otherwise indicated, this genus is referred to by the following writers under the name *Ichthyosaurus*. *Proteosaurus*, however, clearly has priority. On this point see R. Lydekker in his "Catalogue Fossil Reptilia," pt. II, p. vii. Although no species of this genus has as yet been, with certainty, discovered in America, a knowledge of its structure is essential in understanding the genus *Baptanodon*; hence citations of the literature are given.

- Bauer, F. 1898 A, p. 283.
 1900 A, p. 574.
 Baur, G. 1886 H.
 1887 A, p. 491.
 1887 D.
 1887 F.
 1889 F, p. 467.
 1895 B.
 Buckland, W. 1837 A, i, p. 133; II, pls. vii-xix.
 Coles, H. 1853 A.
 1824 A, p. 103.
 Cope, E. D. 1871 B.
 1892 Z, p. 17.
 Cuvier, G. 1834 A, x, pp. 390-444, pls. cclvi-cclx.
 Dames, W. 1893 A.
 Dollo, L. 1892 A.
 Egerton, P. G. 1837 A.
 Fraas, E. 1888 A.
 1891 A.
 1892 A.
 1892 B.
 1894 A.
 1898 A.
 Gaudry, A. 1890 C, p. 179.
 Home, E. 1819 B. (Proteosaurus.)
 Hulke, J. W. 1883 A.
 1892 A.
 Huxley, T. H. 1872 A, p. 208.
 Jaeger, G. F. 1828 A.
 Kiprijanoff, W. 1881 A.
 König, 1821, in Conybeare, W. D., 1821, Trans. Geol. Soc. Lond. (1), v, p. 563. (Ichthyosaurus, type *I. communis* Conybeare; not *Ichthyosaura Latreille*, 1802, Hist Nat. Rept., iv, p. 310, type *Proteus tritonius* Laur.)
 Koken, E. 1883 A, p. 737.
 Kükenhal, W. 1890 C.
 1891 C, p. 392.
 Lydekker, R. 1888 D.
 1889 F, pp. vii, 12.
 1889 I.
 1892 B.
 Maggi, L. 1898 B, figs. 1-5.
 1898 C, figs. A, D.
 Marsh, O. C. 1877 E.
 Merian, P. 1875 A.
 Moore, C. 1867 A.
 Nicholson and Lydekker 1889 A, p. 1124.
 Osborn, H. F. 1900 B, p. 116.
 Owen, R. 1838 B, p. 660.
 1840 A, p. 86.
 1840 B.
 1841 A.
 1842 A, p. 193.
 1845 B, p. 275, pls. lxxviii, lxxviiiA.
 1851 B, p. 68.
 1860 E, p. 200.
 1866 A.
 1881 A, p. 83.
 Pearce, J. C. 1846 A.
 Pictet, F. J. 1853 A, p. 531.
 Quenstedt, F. A. 1852 A, p. 120.
 1885 A, p. 195.
 Sauvage, H. E. 1887 A.
 Schulze, E. 1894 A, p. 1133.
 Seeley, H. G. 1871 A.
 1880 A.
 1892 B, p. 119.
 Steinmann and Döderlein 1890 A, p. 642.
 Thompson, D. A. W. 1886 A.
 Trautschold, H. 1879 A.
 Woodward, A. S. 1886 B.
 1888 I, p. 278.
 1898 B, p. 179, with figures.
 Zittel, K. A. 1890 A, p. 454.

Proteosaurus sp. indet.

- Belcher, E. 1856 A. (Ichthyosaurus sp. indet.)
 Marsh, O. C. 1896 F, p. 444. (Ichthyosaurus.)
 Jurassic; Exmouth Island (lat. 77° 16' N., long. 96° W.).

BAPTANODONTIDÆ.

Marsh, O. C. 1880 E, p. 491.
Baur, G. 1887 D.
 1887 F.

Haeckel, E. 1895 A, p. 340. (Baptanodontia.)
Marsh, O. C. 1879 A, p. 86. (Sauranodontidæ.)

BAPTANODON *Marsh.* Type *B. natans* *Marsh.*

Marsh, O. C. 1880 E, p. 491. (To replace Sauranodon, preoccupied.)
Bauer, F. 1898 A, p. 324.
Baur, G. 1886 F, p. 245.
 1887 D.
 1887 F.
Cope, E. D. 1879 M. (Sauranodon.)
Hulke, J. W. 1883 A. (Sauranodon.)
Lydekker, R. 1888 D. (Syn. of Ophthalmosaurus.)
 1888 E.
 1889 F, p. 6.
Marsh, O. C. 1879 A. (Sauranodon, type *S. natans*.)
 1880 B. (Sauranodon.)
 1891 F, p. 337.
 1897 C, p. 485.
Morse, E. S. 1880 A, p. 7.
Nicholson and Lydekker 1889 A, p. 1126.
Steinmann and Döderlein 1890 A, p. 642.
Wilder, B. G. 1880 A, p. 322. (Sauranodon.)

Zittel, K. A. 1890 A, p. 473.

Baptanodon discus *Marsh.*

Marsh, O. C. 1880 B, p. 171, figure. (Sauranodon.)
 1880 E, p. 491.
 1884 F, p. 183, fig. 148.
 1895 A, p. 405, fig. 1.
 1897 C, p. 485, fig. 30.
Wilder, B. G. 1880 A, p. 322. (Sauranodon.)
 Jurassic; Wyoming.

Baptanodon natans *Marsh.*

Marsh, O. C. 1879 A, p. 86. (Sauranodon.)
Cope, E. D. 1879 M, p. 271. (Sauranodon.)
Lydekker, R. 1889 F, p. 7, fig. 5.
Marsh, O. C. 1880 B, p. 169. (Sauranodon.)
 1880 E, p. 491.
 1895 A, p. 406, fig. 2.
 1897 C, p. 486, fig. 31.
 Jurassic; Wyoming.

CHONESPONDYLUS *Leidy.* Type *C. grandis* *Leidy.*

Leidy, J. 1868 C, p. 178.
 A genus of uncertain position.

Chonespondylus grandis *Leidy.*
Leidy, J. 1868 C, p. 176.
Cope, E. D. 1869 M, p. 29. (Ichthyosaurus.)
 Triassic; Nevada.

CYMBOSPONDYLUS *Leidy.* Type *C. piscosus* *Leidy.*

Leidy, J. 1868 C, p. 178.
 A genus of very uncertain position.

Cymbospondylus petrinus *Leidy.*

Leidy, J. 1868 C, p. 178.
Cope, E. D. 1869 M, p. 30.
 Triassic; Nevada.

Cymbospondylus piscosus *Leidy.*

Leidy, J. 1868 C, p. 178.
Cope, E. D. 1869 M, p. 30.
 Triassic; Nevada.

SHASTASAURUS *Merriam.* Type *S. pacificus* *Merriam.*

Merriam, J. C. 1895 A, p. 55.
Boulenger, G. A., 1896. Zool. Record; Rept., p. 29.
 (Shastasaurus.)
Dames, W. 1895 B, p. 1048.
 The position of this genus is in doubt.

Shastasaurus pacificus *Merriam.*

Merriam, J. C. 1895 A, p. 55, figs. 1, 2.
Dames, W. 1895 B, p. 1048.
 Triassic; California.

Order SQUAMATA *Oppel.*

Oppel, M., 1811, Ordnungen der Reptilien, p. 14.
Baur, G. 1887 A, p. 482. (Streptostylia.)
 1889 F, p. 473.
 1892 B, p. 20.
 1894 A, p. 327.
 1895 A.
 1896 A.
Boulenger, G. A. 1891 A, p. 117.
 1893 A, p. 1.

Calori, L. 1894 A.
Cope, E. D. 1864 A, p. 224.
 1889 R, p. 864.
 1891 N, p. 45.
 1892 R.
 1895 C.
 1895 E.
 1898 B, pp. 56, 74.
 1900 A, pp. 160, 175.

Cuvier, G. 1834 A, x.
 Fürbringer, M. 1900 A.
 Gray, J. E. 1837 A.
 Günther, A. C. 1867 A, p. 625.
 Haeckel, E. 1895 A, p. 340. (Lepidosauria.)
 Hay, O. P. 1899 F, p. 682.
 Lydekker, R. 1888 B, pp. viii, 248.

Müller, J. 1831 A, p. 199.
 Nicholson and Lydekker 1889 A, p. 1137.
 Stannius, H. 1856 A. (Streptostylia.)
 Steinmann and Döderlein 1890 A, p. 644.
 Woodward, A. S. 1898 B, p. 190.
 Zittel, K. A. 1890 A, pp. 450, 602. (Lepidosauria.)

Suborder PYTHONOMORPHA Cope.

Cope, E. D. 1869 A, p. 253.
 Ballou, W. H. 1898 A, p. 212.
 Baur, G. 1887 C, p. 99.
 Bemmelen, J. F. 1896 A, p. 333.
 Boulenger, G. A. 1891 A, p. 117.
 Cope, E. D. 1869 M, pp. 27, 29, 175.
 1870 E.
 1870 O.
 1871 B.
 1871 C, p. 400.
 1872 F, pp. 321, 327, 328.
 1872 CC.
 1874 C, p. 30.
 1875 E, pp. 113, 264, pl. xxxvi.
 1878 G.
 1879 A, p. 36.
 1885 G, p. 246.
 1887 S, p. 334.
 1891 N, pp. 45, 50.
 1892 Z, p. 19.
 1895 C, p. 858.
 1895 E, p. 1004.

Cope, E. D. 1896 A.
 1896 B, p. 75.
 Dana, J. B. 1896 A, p. 870.
 Fürbringer, M. 1900 A, pp. 271, 615, 622. (Mosasauria.)
 Gadow, H. 1898 A, p. 24.
 Gaudry, A. 1892 A.
 Haeckel, E. 1895 A, p. 349.
 Hoffmann, C. K. 1890 B, p. 1320. (Mosasauria.)
 Huxley, T. H. 1872 A, p. 197. (Mosasauria.)
 Lydekker, R. 1888 B, p. 261.
 Marsh, O. C. 1877 E. (Mosasauria.)
 Merriam, J. C. 1894 A.
 Nicholson and Lydekker 1889 A, p. 1143.
 Osborn, H. F. 1899 I, p. 159.
 1900 A, p. 1. ("Mosasaura.")
 Owen, R. 1878 B, p. 755.
 Steinmann and Döderlein 1890 A, p. 645.
 Williston, S. W. 1898 E, p. 170. (Mosasauria.)
 Williston and Case 1892 A.
 Woodward, A. S. 1898 B, p. 191, with figures.
 Zittel, K. A. 1890 A, p. 611.

MOSASAURIDÆ.

Baur, G. 1890 A.
 1890 B.
 1892 B.
 Cope, E. D. 1869 A, p. 258.
 1869 M, pp. 182, 183.
 1878 G.
 1895 C.
 Dollo, L. 1882 A.
 1885 B.
 1885 C.
 1888 D.
 1890 A.
 1893 B.
 Fürbringer, M. 1900 A.
 Gaudry, A. 1890 C, p. 202.

Lydekker, R. 1888 B, p. 261.
 Marsh, O. C. 1872 F.
 1880 A.
 Merriam, J. C. 1894 A.
 Nicholson and Lydekker 1889 A, p. 1143.
 Owen, R. 1877 A.
 1878 B.
 1879 B.
 1880 A, p. 177.
 Quenstedt, F. A. 1885 A, p. 189. (Mosasauri.)
 Thévenin, A. 1896 A.
 Williston, S. W. 1891 A.
 1897 F.
 1898 E.
 Williston and Case 1892 A, p. 16.

MOSASAURINÆ.

Williston, S. W. 1897 F, pp. 177, 181.
 Cope, E. D. 1869 A, p. 258. (Clidastidæ.)
 1869 M, p. 182. (Clidastidæ.)

Marsh, O. C. 1876 G, p. 59. (Edestosauridæ.)
 Williston, S. W. 1898 E, pp. 91, 195.

MOSASAURUS Conybeare. Type *M. belgicus* Holl.

Conybeare, 1822, in Parkinson's *Introduct. Study*
 Foss. Organ. Remains, p. 198.
 Ballou, W. H. 1898 A, p. 212.
 Baur, G. 1892 B.
 Buckland, W. 1837 A, li. p. 167, pl. xx.
 Charlesworth, E. 1846 A.
 Cope, E. D. 1869 A, p. 260.
 1869 K, p. 85.

Cope, E. D. 1869 M, pp. 185, 186, fig. 47.
 1874 C, p. 31.
 1875 E, p. 128.
 1878 G.
 Cuvier, G. 1808 A, p. 145. ("Animal de Maastricht.")
 1834 A, x, pp. 119-175, pls. cclvi-cclviii
 De Kay, J. E. 1830 A.

- Dollo, L. 1882 A, p. 56.
 1888 D.
 1890 A.
 1893 A. (Leiodon, a synonym.)
 1893 B. (Syn. of *Plioplatecarpus*.)
 Gaudry, A. 1890 A, p. 202.
 1892 A, p. 10.
 Gibbs, R. W. 1850 A.
 1851 A. (*Mosasaurus*, *Holcodus*; *Amphoro-*
steus, type *A. brumbyi*.)
 Goldfuss, A. 1845 A.
 Harlan, R. 1834 B, p. 81.
 1835 J.
 1839 A. (*Batrachiosaurus*.)
 1839 B, p. 90. (*Batrachiotherium*.)
 Holmes, F. S. 1849 A, p. 197.
 Leidy, J. 1857 E.
 1859 D.
 1865 A, p. 30 (*Mosasaurus*); p. 118 (*Baseodon*,
 type *B. reversus* = *M. dekayi*).
 1873 B, p. 270.
 Lippincott, J. S. 1881 A.
 Lydekker, R. 1888 B, p. 261.
 Merriam, J. C. 1894 A.
 Meyer, H. 1860 C.
 1860 D, p. 98.
 Nicholson and Lydekker 1889 A, p. 114.
 Owen, R. 1842 A, p. 144.
 1845 B, p. 258.
 1851 B, p. 29.
 1877 A.
 Pictet, F. J. 1863 A, p. 504 (*Mosasaurus*); p. 506
 (*Batrachiosaurus*, *Batrachiotherium*).
 Quenstedt, F. A. 1852 A, p. 116.
 1885 A, p. 189.
 Steinmann and Döderlein 1890 A, p. 646.
 Thévenin, A. 1896 A.
 1896 B.
 Williston, S. W. 1897 F.
 1898 E, p. 196.
 Woodward, A. S. 1898 B, p. 194, with figures.
 Zittel, K. A. 1890 A, p. 519.

***Mosasaurus brumbyi* (Gibbes.)**

- Gibbes, R. W. 1851 A, p. 10, pl. III, figs. 10-16.
 (*Amphoroosteus*.)
 Cope, E. D. 1869 A, p. 264.
 1869 M, pp. 198, and II.
 1870 O, p. 576.
 1871 D, p. 411.
 1875 E, p. 270.
 Gibbs, R. W. 1850. (Name only.)
 Leidy, J. 1865 A, pp. 37, 118. (*Amphoroosteus*.)
 Lydekker, R. 1888 B, p. 267. (*Liodon*.)
 Cretaceous (Rotten limestone); Alabama.

***Mosasaurus carolinensis* Gibbs.**

- Gibbes, R. W. 1851 A, p. 8, pl. II, figs. 1-3.
 Cope, E. D. 1869 M, p. 193. (Syn. ? of *M. dekayi*.)
 1875 E, p. 269. (Syn. ? of *M. dekayi*.)
 Gibbs, R. W. 1850 A. (No description.)
 Leidy, J. 1865 A, pp. 32, 117. (Syn. of *M. mitchellii*.)
 Cretaceous; South Carolina.

***Mosasaurus copeanus* Marsh.**

- Marsh, O. C. 1869 B, p. 398.

- Cope, E. D. 1869 M, p. 196.

1875 E, p. 270.

- Marsh, O. C. 1872 F, p. 455.

Cretaceous (Green-sand No. 4); New Jersey.

***Mosasaurus couperi* Gibbes.**

- Gibbes, R. W. 1851 A, p. 7, pl. II, figs. 4, 5.
 Cope, E. D. 1869 M, p. 193. (Syn. ? of *M. dekayi*.)
 1875 E, p. 269. (Syn. ? of *M. dekayi*.)
 Gibbs, R. W. 1850 A. (No description.)
 Leidy, J. 1865 A, pp. 32, 117. (Syn. of *M. mitch-*
ellii.)
 Cretaceous; Georgia.

***Mosasaurus crassidens* Marsh.**

- Marsh, O. C. 1870 F.
 Cope, E. D. 1869 M, p. 198.
 1875 E, p. 270.
 1876 V, p. 41.
 Cretaceous; North Carolina.

***Mosasaurus dekayi* Bronn.**

- Bronn, H. G. 1838 A, p. 760.
 Cope, E. D. 1867 E, p. 27. (*M. mitchellii*.)
 1869 A, p. 262. (*M. mitchellii*.)
 1869 B, p. 733 (*M. mitchellii*); p. 734 (*Baseodon*
reversus).
 1869 K, p. 86. (*M. mitchellii*.)
 1869 M, pp. 193, 235, (?) pl. XI, fig. 8; text
 figs. 48, 49.
 1875 E, p. 269, pl. xxxvii, fig. 16.
 1895 C, p. 859, pl. xxxi, figs. 2, 2a.
 De Kay, J. E. 1830 A, p. 135. (*Mosasaurus* sp.)
 1842 A, p. 28, pl. xxii, figs. 57, 58. (*M. major*.)
 Emmons, E. 1858 B, p. 217, figs. 36A, 37. (*M. max-*
imilliani.)
 Gibbs, R. W. 1850 A.
 1851 A, p. 8, pl. I, figs. 2, 6.
 Harlan, R. 1835 J. ("Saurian reptile.")
 Leidy, J. 1865 A, p. 116, plates referred to, in part
 (*M. mitchellii*); p. 118, pl. x, figs. 14, 15 (*Baseodon*
reversus.)
 1865 D, p. 70, in part.

- Mitchell, S. L. 1818 A, pp. 384, 385, 431, pl. viii,
 fig. 4. ("Saurian.")
 Morton, S. G. 1844 B, p. 132. (*M. occidentalis*;
 no description.)
 Owen, R. 1849 A, p. 382, pl. x, fig. 5. (*M. maxi-*
milliani.)
 Cretaceous; New Jersey, South Carolina?

***Mosasaurus depressus* Cope.**

- Cope, E. D. 1869 A, p. 262.
 1869 B, p. 734.
 1869 C.
 1869 M, pp. 189, 196, pl. xi, fig. 6, text fig. 48.
 1875 E, p. 269, pl. xxxvii, fig. 12.
 Cretaceous; New Jersey.

***Mosasaurus fulciatus* Cope.**

- Cope, E. D. 1869 M, p. 194.
 1870 E.
 1875 E, p. 269, pl. xxxvii, fig. 13.
 Cretaceous; New Jersey.

Mosasauros horridus Williston.

- Williston, S. W. 1898 E, pp. 103, 110, 115, 145, 147, 150, 152, 154, pls. xix-xxi; pl. xxxii.
 Ballou, W. H. 1898 A, p. 217.
 Williston, S. W. 1897 D, p. 95. (No description.)
 Cretaceous (Niobrara); Kansas.

Mosasauros maximus Cope.

- Cope, E. D. 1869 A, p. 262.
 1869 M, pp. 188, 189, pl. xi, fig. 7; text figs. 48, 49.
 1870 R, p. 86.
 1875 E, p. 269, pl. xxxvii, fig. 15.
 Marsh, O. C. 1869 B, p. 393.
 Whitfield, R. P. 1900 A, p. 25, pls. iv, v.
 Cretaceous; New Jersey.

Mosasauros miersii Marsh.

- Marsh, O. C. 1869 B, p. 395.
 Cope, E. D. 1869 M, p. 199.
 1875 E, p. 270.
 Cretaceous; New Jersey.

Mosasauros minor Gibbes.

- Gibbes, R. W. 1851 A, p. 7, pl. i, figs. 3-8.
 Cope, E. D. 1869 A, p. 261.
 1869 M, pp. 186, 189, 196.
 1875 E, p. 270. (Syn.? of *M. acutidens*—*Holcodus acutidens*.)
 Gibbes, R. W. 1850 A. (No description.)
 Leidy, J. 1865 A, p. 118. (*Holcodus acutidens*.)
 Cretaceous; Alabama.

Mosasauros missouriensis (Harlan).

- Harlan, R. 1834 D, p. 406, pl. xx. (*Ichthyosaurus*.)
 Baur, G. 1892 B, p. 9. (*M. maximiliani*.)
 Cope, E. D. 1869 A, p. 263.
 1869 K, p. 86.
 1869 M, pp. 189, 195.
 1871 D, p. 401.
 1875 E, pp. 219, 269.
 Gibbes, R. W. 1850 A. (*M. maximiliani*.)
 1851 A, p. 6, pl. i, fig. 7. (*M. maximiliani*.)

CLIDASTES Cope. Type *C. iguanavus* Cope.

- Cope, E. D. 1868 H, p. 181. (*Clidastes*; *Nectoporus*, type *N. validus* Cope.)
 1868 K, p. 233.
 1869 A.
 1869 M, p. 211, figs. 50-52.
 1871 D, p. 412.
 1871 N, p. 266.
 1872 F, pp. 322, 330.
 1874 C, p. 31.
 1875 E, pp. 128, 130, pl. iv.
 1878 G.
 Dollo, L. 1885 C, p. 29 (*Edestosaurus*); p. 30 (*Clidastes*).
 Lydekker, R. 1888 B, p. 272.
 Marsh, O. C. 1871 B, p. 447. (*Edestosaurus*, type *E. dispar* Marsh.)
 1872 C, p. 291. (*Edestosaurus*.)
 1872 F, p. 463. (*Edestosaurus*.)
 1872 T, p. 496. (*Edestosaurus*, *Clidastes*.)
 Merriam, J. C. 1894 A, p. 31.
 Nicholson and Lydekker 1889 A, p. 1143.

- Goldfuss, A. 1845 A, pls. vi-ix. (*M. maximiliani*.)
 1848, Versamml. deutsch. Naturf., Mainz, p. 141. (*M. neovidii*.)
 Harlan, R. 1834 A. (*Ichthyosaurus missouriensis*; no description.)
 1834 B, p. 80. (*Ichthyosaurus*.)
 1834 D, p. 406, pl. xxx, figs. 3-8. (*Ichthyosaurus*.)
 1834 E. (*Ichthyosaurus*.)
 1835 B, p. 284. (*Ichthyosaurus*.)
 1835 E. (*Ichthyosaurus*.)
 1839 A. (" *Batrachiosaurus*.")
 1839 B. (" *Batrachotherium*.")
 1839 C. (*Batrachiosaurus*.)
 1842 B, p. 142. (*Batrachotherium*.)
 Hoffman, C. K. 1890 B, p. 1320. (*M. maximiliani*.)
 Leidy, J. 1865 A, p. 117, pl. vii, figs. 15-18; pl. viii, figs. 6, 8; pl. x, figs. 18, 19; pl. xvii, figs. 12, 13. (Determinations doubtful.)
 Meyer, H. 1845 B, p. 313. (*M. maximiliani*, *M. missouriensis*.)
 Pictet, F. J. 1853 A, p. 505. (*M. maximiliani*.)
 Quenstedt, F. A. 1852 A, p. 118.
 Zittel, K. A. 1890 A, p. 621. (*M. maximiliani*.)
 Cretaceous; Nebraska.

Mosasauros oarthrus Cope.

- Cope, E. D. 1869 M, pp. 189, 196.
 1870 E.
 1875 E, p. 269, pl. xxxvii, fig. 17.
 Cretaceous; New Jersey.

Mosasauros princeps Marsh.

- Marsh, O. C. 1869 B, p. 392.
 Baur, G. 1892 B, p. 4.
 Cope, E. D. 1869 M, pp. 188, 192.
 1875 E, p. 269. (Syn. *M. deKayi*.)
 Cretaceous; New Jersey.

Mosasauros sp. indet.

- Leidy, J. 1865 A, pp. 45, 113, pl. viii, figs. 9, 10.
 1878 B, pp. 279, 343, pl. xxxvi, fig. 15.
 Harlan, R. 1835 B, p. 235.

- Owen, R. 1877 A.
 Steinmann and Döderlein 1890 A, p. 646.
 Williston, S. W. 1891 A.
 1893 C.
 1897 E.
 1897 F.
 1897 J, p. 107.
 1898 A, figure.
 1898 E, p. 195.
 Williston and Case 1892 A, p. 17.
 Woodward, A. S. 1896 B, p. 195. (*Edestosaurus*.)
 Zittel, K. A. 1890 A, p. 623 (*Clidastes*); p. 624 (*Edestosaurus*).

Clidastes cinerearum Cope.

- Cope, E. D. 1870 O, p. 583.
 1871 D, p. 413.
 1871 N, p. 266.
 1872 F, pp. 322, 330.
 1875 E, pp. 48, 137, 266, pl. xxi, figs. 14-17.
 1877 G, p. 583.

- Marsh, O. C. 1871 B, p. 449.
 Williston, S. W. 1891 A. (Syn.? of *C. velox*.)
 1898 E, p. 198.
 Williston and Case 1892 A, p. 17.
 Cretaceous (Niobrara); Kansas.

***Clidastes conodon* Cope.**

- Cope, E. D. 1881 R.
 Cretaceous; New Jersey.

***Clidastes dispar* (Marsh).**

- Marsh, O. C. 1871 B, p. 447. (*Edestosaurus*.)
 Cope, E. D. 1871 N, p. 269. (*Edestosaurus*.)
 1872 F, p. 330. (*Edestosaurus*.)
 1872 CC, p. 141. (*Edestosaurus*.)
 1874 C, p. 33.
 1875 E, p. 266.
 1877 G, p. 583.
 Fürbringer, M. 1900 A, p. 272.
 Marsh, O. C. 1872 F, p. 463, pl. xi. (*Edestosaurus*.)
 1890 A, p. 86, pl. i. (*Edestosaurus*.)
 Owen, R. 1890 A, pl. viii, fig. 1. (*Edestosaurus*.)
 Williston, S. W. 1891 A.
 1898 E, pp. 196, 201. (*C. velox* in part; *C. tortor* in part.)

- Williston and Case 1892 A, pp. 17, 30.
 Woodward, A. S. 1898 B, p. 193, fig. 117.
 Zittel, K. A. 1890 A, p. 617, fig. 549.
 Cretaceous (Niobrara); Kansas.

***Clidastes iguanavus* Cope.**

- Cope, E. D. 1868 H.
 1868 K, p. 233.
 1869 A, p. 258.
 1869 B, p. 734.
 1869 K, p. 86.
 1869 M, p. 220, pl. v, fig. 3.
 1872 F, p. 330.
 1875 E, pp. 138, 266.

- Marsh, O. C. 1871 B, p. 449.
 Cretaceous; New Jersey.

***Clidastes intermedius* Leidy.**

- Leidy, J. 1870 E, p. 4.
 Cope, E. D. 1869 M, p. 221.
 1871 D, p. 412.
 1875 E, pp. 136, 267.
 Marsh, O. C. 1871 B, p. 451.
 Leidy, J. 1873 B, pp. 281, 344, pl. xxxiv, figs. 1-5.
 Cretaceous; Alabama.

***Clidastes liodontus* Merriam.**

- Merriam, J. C. 1894 A, p. 35.
 Williston, S. W. 1898 E, p. 204.
 Cretaceous; Kansas.

***Clidastes propython* Cope.**

- Cope, E. D. 1869 D.
 1869 A, p. 258.
 1869 M, p. 221, pl. xii, figs. 1-21.
 1871 B, figs. 15, 19.
 1875 E, p. 265, pl. xxxvii, fig. 1.
 1878 G, p. 303.

- Dana, J. D. 1876 A, p. 65.

- Marsh, O. C. 1871 B, p. 451.
 Zittel, K. A. 1890 A, p. 623, figs. 545, 547, 548, 558.
 Cretaceous; Alabama.

***Clidastes pumilis* Marsh.**

- Marsh, O. C. 1871 G, p. 104.

- Cope, E. D. 1871 N, p. 266.
 1872 F, pp. 323, 330.
 1874 C, p. 34.
 1875 E, pp. 48, 266.
 Marsh, O. C. 1871 B, p. 452.
 Merriam, J. C. 1894 A, p. 35.
 Williston, S. W. 1898 E, p. 198. (Syn. of *C. velox*.)
 Williston and Case 1892 A, p. 17. (Syn. of *C. velox*.)
 Cretaceous (Niobrara); Kansas.
 It seems not improbable that this species will yet prove to be the young of *C. velox*.

***Clidastes rex* (Marsh).**

- Marsh, O. C. 1872 F, p. 460, pl. xii. (*Edestosaurus*.)
 Cope, E. D. 1874 C, p. 33.
 1875 E, p. 266.
 Marsh, O. C. 1897 C, p. 527. (*Edestosaurus*.)
 Williston, S. W. 1898 E, p. 201. (Syn. of *C. tortor*.)
 Williston and Case 1892 A, pp. 17, 30.
 Cretaceous (Niobrara); Kansas.

***Clidastes stenops* Cope.**

- Cope, E. D. 1871 N, p. 268. (*Edestosaurus*.)
 1872 F, p. 330. (*Edestosaurus*.)
 1874 C, p. 33.
 1875 E, pp. 133, 266, pls. xiv, fig. 2; pl. xvii, figs. 7, 8; pl. xviii, figs. 1-5; pl. xxxvi, fig. 4; pl. xxxvii, figs. 1-3; pl. xxxviii, fig. 3.
 1878 G, p. 299.
 Marsh, O. C. 1872 F, p. 464. (*Edestosaurus*.)
 Williston, S. W. 1898 E, p. 197.
 Williston and Case 1892 A, pp. 17, 30.
 Zittel, K. A. 1890 A, p. 613, fig. 541.
 Cretaceous (Niobrara); Kansas.

***Clidastes tortor* Cope.**

- Cope, E. D. 1871 N, pp. 265, 266. (*Edestosaurus*.)
 1872 F, pp. 322, 330. (*Edestosaurus*.)
 1872 CC, p. 141. (*Edestosaurus*.)
 1874 C, p. 33.
 1875 E, pp. 48, 131, 265, pl. xiv, fig. 1; pl. xvi, figs. 1, 6; pl. xvii, fig. 1; pl. xix, figs. 1-6; pl. xxxvi, fig. 3; pl. xxxvii, fig. 2; pl. xxxviii, fig. 2.
 1877 G, p. 583.

- Marsh, O. C. 1872 F, p. 464. (*Edestosaurus*.)
 Merriam, J. C. 1894 A, p. 34. (*C. medius*.)
 Williston, S. W. 1897 D, p. 97.
 1898 E, p. 201, pl. xxiii; pl. xxvii, fig. 2; pl. xxviii, fig. 6; pl. xxix, fig. 2; pl. xxxvii; pl. xxxviii; pl. xxxix; pl. xlii, figs. 5, 6; pl. xlvi; pl. liv, figs. 4, 5; pl. lx, fig. 5; pl. lxiv, fig. 1.

- Williston and Case 1892 A, p. 17.
 Cretaceous (Niobrara); Kansas.

***Clidastes ? validus* Cope.**

- Cope, E. D. 1868 H, p. 181. (*Nectoporphus*.)
 1869 A, p. 260. (*Macroosaurus*.)
 1869 B, p. 734. (*Macroosaurus*.)
 1869 K, p. 86. (*Macroosaurus*.)
 1869 M, p. 208. (*Liodon validus*, in part); pl. v, fig. 5, (*Macroosaurus validus*); p. v, expl. of pl. v (*Clidastes antivalidus*, based on type vertebra of *Nectoporphus validus*).
 1871 D, p. 414. (*C. antivalidus*.)
 Cretaceous; New Jersey.

Clidastes velox (Marsh).

- Marsh, O. C. 1871 B, p. 450. (Edestosaurus.)
 Ballou, W. H. 1898 A, p. 215, fig. 221.
 Cope, E. D. 1871 N, p. 269. (Edestosaurus.)
 1872 F, p. 330. (Edestosaurus.)
 1874 C, p. 33. (C. affinis, C. velox.)
 1875 E, p. 266. (C. velox, C. affinis.)
 Ledy, J. 1873 B, pp. 283, 344, pl. xxxiv, figs. 6-11.
 (C. affinis.)
 Marsh, O. C. 1872 F, p. 464. (Edestosaurus.)
 Merriam, J. C. 1894 A, p. 34, pl. 4, fig. 4; pl. iii,
 figs. 6, 7, 9, 10.
 Williston, S. W. 1891 A.
 1893 C, pl. iii.
 1897 J, p. 110.
 1898 E, pls. x-xii; pl. xxiv, figs. 6, 7; pl.
 xxvii, figs. 3, 4; pl. xxviii, figs. 1-4; pl.
 xxxi, fig. 6; pl. xxxiii; pl. xxxiv; pl. xl,
 figs. 6, 7; pl. lxii, fig. 3; pl. lxiii, fig. 1.
 (Includes, besides C. velox (Marsh) also C.
 pumilis Marsh, C. affinis Ledy, and C.
 dispar (Marsh).)

Williston and Case 1892 A, p. 17, pls. ii, iii.
 Cretaceous (Niobrara); Kansas.

Clidastes westii Williston and Case.

Williston, S. W. 1892 A, p. 29, pls. iv-vi.
 1898 E, p. 205, pl. xxiii; pl. xxvii, fig. 1; pl.
 xxxv; pl. xxxvi; pl. xxxix; pl. lili.
 Cretaceous (Pierre); Kansas.

Clidastes wymani Marsh.

Marsh, O. C. 1871 G, p. 104.
 Cope, E. D. 1871 N, p. 266.
 1872 F, p. 330.
 1874 C, p. 33. (C. vymanii.)
 1875 E, p. 266. (C. vymanii.)
 Marsh, O. C. 1871 B, p. 451.
 1872 F, p. 464. (Edestosaurus.)
 Williston, S. W. 1898 E, p. 208.
 Williston and Case 1892 A, pp. 17, 30.
 Cretaceous (Niobrara); Kansas.

BAPTOSAURUS Marsh. Type *Halisaurus platyspondylus* Marsh.

- Marsh, O. C. 1870 F. (To replace *Hailsaurus*, pre-
 occupied by *Halosaurus* Günther.)
 Cope, E. D. 1869 M, pp. 185, 208.
 1874 C, p. 31.
 1875 E, pp. 128, 272.
 Dollo, L. 1885 C, p. 28.
 Marsh, O. C. 1869 B, p. 395. (*Halisaurus*, type *H.*
platyspondylus)
 Merriam, J. C. 1894 A, p. 36.
 Nicholson and Lydekker 1889 A, p. 1142.
 Williston, S. W. 1897 F.
 1897 H, p. 244.
 1897 J, p. 107.
 1898 E, p. 207.
 Zittel, K. A. 1890 A, p. 624.
 The systematic position of this genus is
 doubtful.

Marsh, O. C. 1870 F.
 Cretaceous; New Jersey.

Baptosaurus onchognathus Merriam.

Merriam, J. C. 1894 A, p. 37, pl. iv, fig. 9.
 Williston, S. W. 1898 E, p. 208, pl. xxv, fig. 6; pl.
 xli, fig. 3.
 Cretaceous (Niobrara); Kansas.

Baptosaurus platyspondylus Marsh.

Marsh, O. C. 1869 B, p. 395. (*Halisaurus*)
 Cope, E. D. 1869 M (1870), p. 209.
 1875 E, p. 272.
 Marsh, O. C. 1869 B, p. 395. (*Halisaurus*)
 1870 F.
 Cretaceous; New Jersey.
 This species is said to have been described
 at the Salem meeting of the Amer. Assoc. Adv.
 Sci., 1869, under the name *Macrospendylus*
platyspondylus, but the name does not occur in
 the "Proceedings."

Baptosaurus fraternus Marsh.

Marsh, O. C. 1869 B, p. 397. (*Halisaurus*)
 Cope, E. D. 1869 M (1870), p. 210.
 1875 E, p. 272.

PLATECARPINÆ.

Williston, S. W. 1897 F, pp. 177, 181.

| Williston, S. W. 1898 E, pp. 91, 177.

SIRONECTES Cope. Type *S. anguliferus* Cope.

- Cope, E. D. 1874 C, pp. 31, 34.
 1875 E, pp. 128, 139, 267.
 Dollo, L. 1885 C, p. 30.
 Nicholson and Lydekker 1889 A, p. 1144.
 Williston, S. W. 1897 H, p. 245.
 1897 J, p. 107.
 Zittel, K. A. 1890 A, p. 624.

Sironectes anguliferus Cope.

Cope, E. D. 1874 C, pp. 31, 34.
 1875 E, pp. 139, 267, pl. xxiii, figs. 16-18; pl.
 xxiv, figs. 1-15.
 Williston, S. W. 1898 E, pp. 188, 194. (? *Platecar-*
pus planifrons.)
 Cretaceous (Niobrara); Kansas.

Holcodus Gibbes. Type *H. acutidens* Gibbes.

- Gibbes, R. W. 1851 A, p. 9.
 Cope, E. D. 1869 M, pp. 185, 199.
 1871 N, p. 269.
 1872 F, p. 381.
 1872 CC, p. 141.
 Leidy, J. 1865 A, p. 118. (In part).
 Marsh, O. C. 1872 C, p. 291.
 1872 F, p. 455. (Syn.? of *Mosasaurus*.)
 Williston, S. W. 1897 F, p. 134. (= ? *Platecarpus*.)
 1898 E, p. 178. (= ? *Platecarpus*.)
 Zittel, K. A. 1890 A, p. 620. (Syn. of *Mosasaurus*.)

***Holcodus acutidens* Gibbes.**

Gibbes, R. W. 1851 A, p. 9, pl. iii, figs. 6-9; not fig. 13.

- Cope, E. D. 1869 M, pp. 200, 210.
 1872 CC, p. 141.
 1875 E, p. 270. (*Mosasaurus*.)
 Gibbes, R. W. 1850 A. (*H. columbiensis*; no description.)
 Leidy, J. 1865 A, p. 118 (in part), pl. x, fig. 17.
 Marsh, O. C. 1869 B, p. 394.
 Williston, S. W. 1898 E, p. 178. (*Platecarpus* ?)
 Zittel, K. A. 1890 A, p. 623.
 Cretaceous; Mississippi.

PLATECARPUS Cope. Type *P. tympaniticus* Cope.

- Cope, E. D. 1869 A, p. 264.
 Most of the authorities named below include in this genus also the species placed in this work in the genus *Lestosauros* Marsh.
 Cope, E. D. 1869 M, pp. 185, 199.
 1872 CC, p. 141.
 1874 C, pp. 31, 34.
 1875 E, pp. 123, 141, 266.
 1878 G. (In part).
 Leidy, J. 1865 A, p. 118. (*Holcodus*, in part).
 Lydekker, R. 1888 B, p. 269.
 Merriam, J. C. 1894 A.
 Nicholson and Lydekker 1889 A, p. 1144.
 Owen, R. 1877 A.
 Steinmann and Döderlein 1890 A, p. 646.
 Thévenin, A. 1896 B.

- Williston, S. W. 1891 A.
 1897 E.
 1898 E.
 Woodward, A. S. 1898 B, p. 194.
 Zittel, K. A. 1890 A, p. 622.
***Platecarpus tympaniticus* Cope.**
 Cope, E. D. 1869 A, p. 265.
 1869 M, p. 200.
 1874 C, p. 35.
 1875 E, p. 267, pl. xxxvii, fig. 11.
 Leidy, J. 1865 A, p. 118 (in part), pl. vii, figs. 4-7; pl. xi, fig. 14. (*Holcodus acutidens*.)
 Williston, S. W. 1897 F, p. 178.
 1898 E, p. 179.
 Cretaceous; Mississippi.

LESTOSAURUS Marsh. Type *L. sinus* Marsh.

- Marsh, O. C. 1872 F, p. 454.
 Baur, G. 1892 B. (*Platecarpus*.)
 Cope, E. D. 1872 CC, p. 141. (*Lestosauros*.)
 1874 C, pp. 31, 34. (*Platecarpus*.)
 1875 E, pp. 123, 141, 266 (*Platecarpus*.)
 1878 G. (*Platecarpus*.)
 Dollo, L. 1885 C, p. 28 (*Lestosauros*); p. 29 (*Platecarpus*.)
 Lydekker, R. 1888 B, p. 269. (*Platecarpus*.)
 Marsh, O. C. 1872 T, p. 497.
 1890 A, p. 84.
 Merriam, J. C. 1894 A. (*Platecarpus*.)
 Nicholson and Lydekker 1889 A, p. 1144. (*Platecarpus*.)
 Osborn, H. F. 1899 D. (*Platecarpus*.)
 Owen, R. 1877 A. (*Platecarpus*.)
 Steinmann and Döderlein 1890 A, p. 646. (*Platecarpus*.)
 Williston, S. W. 1891 A. (*Platecarpus*.)
 1897 F. (*Platecarpus*.)
 1897 J, p. 108. (*Platecarpus*.)
 1898 E. (*Platecarpus*.)
 1898 H, p. 235. (*Platecarpus*.)
 1899 A, p. 40. (*Platecarpus*.)
 Zittel, K. A. 1890 A, p. 622 (*Platecarpus*.)

***Lestosauros clidastoides* (Merriam).**

- Merriam, J. C. 1894 A, p. 80. (*Platecarpus*.)
 Williston, S. W. 1898 E, p. 190. (*Platecarpus*.)
 Cretaceous; Kansas.

***Lestosauros coryphæus* (Cope).**

- Cope, E. D. 1871 N, p. 269. (*Holcodus*.)
 Ballou, W. H. 1898 A, pp. 216, 223, figure. (*Platecarpus*.)
 Baur, G. 1892 B, pls. i, ii. (*Platecarpus*.)
 Cope, E. D. 1872 F, pp. 322, 331. (*Holcodus*.)
 1874 C, p. 35. (*Platecarpus*.)
 1875 E, pp. 47, 142, pl. xv, fig. 1; pl. xvi, fig. 3; pl. xvii, fig. 6; pl. xx, figs. 4-7; pl. xxi, figs. 1, 2; pl. xxxvi, fig. 6; pl. xxxvii, fig. 9. (*Platecarpus*.)
 Fürbringer, M. 1900 A, p. 272. (*Platecarpus*.)
 Leidy, J. 1873 B, pp. 276, 344, pl. xxxiv, figs. 12-14; pl. xxxvi, figs. 4-14.
 Marsh, O. C. 1872 F, pp. 457, 461. (*Edestosauros*.)
 Merriam, J. C. 1894 A, p. 29, pl. i, figs. 1, 2; pl. iii, figs. 3-5, 11; pl. iv, figs. 2, 8. (*Platecarpus*.)
 Osborn, H. F. 1899 D, p. 171, text figs. 2, 3. (*Platecarpus*.)
 1900 A, p. 2, fig. 1. (*Platecarpus*.)

- Wagner, G. 1898 A, p. 208. (*Platecarpus coryphaeus?*)
- Williston, S. W. 1897 J, p. 110. (*Platecarpus.*)
 1898 E, pp. 103, 145, 149, 153, 160, 186, pls. xlii-lv; pl. xxii, fig. 2; pl. xxiv, figs. 1-5; pl. xxv, figs. 1-5; pl. xxvi; pl. xxvii, fig.; pl. xxviii, fig. 5; pl. xxix, figs. 3-5; pl. xxxi, figs. 1-5; pl. xlii figs. 3, 4; pl. xlii, figs. 1-4; pl. i; pl. lii; pl. lii, figs. 2, 3; pl. lii; pl. lvi; pl. lvii, figs. 4-10; pl. lviii; pl. lx, fig. 3; pl. lxi, fig. 3; pl. lxiii; pl. lxiv, fig. 2; pl. lxvii, fig. 2. (*Platecarpus.*)
 1899 A, p. 39, pl. xli. (*Platecarpus.*)
- Woodward, A. S. 1898 B, p. 193, fig. 117.
 Cretaceous (*Niobrara*, Pierre?); Kansas.

***Lestosaurus crassartus* (Cope).**

- Cope, E. D. 1871 N, p. 278. (*Liodon.*)
 1872 F, p. 332. (*Liodon.*)
 1872 CC, p. 141. (*Liodon.*)
 1874 C, p. 36. (*Platecarpus.*)
 1875 E, pp. 153, 268, pl. xxvi, figs. 4-12. (*Platecarpus.*)
- Marsh, O. C. 1872 F, p. 462. (*Liodon.*)
 Williston, S. W. 1898 E, p. 180, pl. xlv, figs. 3, 4. (*Platecarpus?*)
 Cretaceous (*Pierre*); Colorado.

***Lestosaurus curtirostris* (Cope).**

- Cope, E. D. 1871 N, p. 273. (*Liodon.*)
 1871 A. (*Liodon*; no description.)
 1872 F, p. 331. (*Liodon.*)
 1872 CC, p. 141. (*Liodon.*)
 1874 C, p. 36. (*Platecarpus.*)
 1875 E, pp. 150, 268, pl. xiv, fig. 3; pl. xv, fig. 3; pl. xvi, figs. 4, 5; pl. xvii, fig. 2; pl. xviii, figs. 7, 8; pl. xxi, figs. 7-13; pl. xxxvi, figs. 1, 5; pl. xxxvii, fig. 10; pl. xxxviii, fig. 1. (*Platecarpus.*)
- Lydekker, R. 1888 B, p. 270, fig. 59. (*Platecarpus.*)
 Marsh, O. C. 1872 F, p. 461. (*Lestosaurus.*)
 Cretaceous (*Niobrara*); Kansas.

***Lestosaurus felix* Marsh.**

- Marsh, O. C. 1872 F, p. 457, pl. xlii.
- Cope, E. D. 1874 C, p. 35. (*Platecarpus.*)
 1875 E, p. 267. (*Platecarpus.*)
- Williston, S. W. 1898 E, p. 189. (*Platecarpus.*)
 Cretaceous (*Niobrara*); Kansas.

***Lestosaurus glandiferus* (Cope).**

- Cope, E. D. 1871 N, p. 276. (*Liodon.*)
 1872 F, p. 332. (*Liodon.*)
 1874 C, p. 36. (*Platecarpus?*)
 1875 E, pp. 156, 268, pl. xxvi, figs. 13, 14. (*Platecarpus.*)
- Williston, S. W. 1898 E, p. 182. (*Platecarpus.*)
 Cretaceous (*Niobrara*, Pierre?); Kansas.

***Lestosaurus gracilis* Marsh.**

- Marsh, O. C. 1872 F, p. 460.
- Cope, E. D. 1874 C, p. 36. (*Platecarpus.*)
 1875 E, p. 268. (*Platecarpus.*)
- Williston, S. W. 1898 E, p. 187. (*Platecarpus.*)
 Cretaceous (*Niobrara*); Kansas.

***Lestosaurus ictericus* (Cope).**

- Cope, E. D. 1870 Q. (*Liodon.*)
 1870 O, p. 577. (*Liodon.*)
 1871 D, p. 406. (*Liodon.*)
 1871 N, p. 272. (*Holcodus.*)
 1872 F, p. 331. (*Holcodus.*)
 1874 C, p. 35. (*Platecarpus.*)
 1875 E, pp. 144, 267, pl. xiv, fig. 4; pl. xv, fig. 2; pl. xvii, figs. 3, 4; pl. xviii, fig. 6; pl. xix, figs. 7-10; pl. xx, figs. 1-3; pl. xxv, figs. 1-26; pl. xxxvi, fig. 7; pl. xxxvii, fig. 8. (*Platecarpus.*)
- Marsh, O. C. 1872 F, p. 461. (*Lestosaurus.*)
 Merriam, J. C. 1894 A, p. 30. (*Platecarpus.*)
 Williston, S. W. 1898 E, p. 194, pls. xliii, xlii. (*Platecarpus.*)
 Cretaceous (*Niobrara*); Kansas.

***Lestosaurus latifrons* Marsh.**

- Marsh, O. C. 1872 F, p. 458.
- Cope, E. D. 1874 C, p. 36. (*Platecarpus.*)
 1875 E, p. 268. (*Platecarpus.*)
- Williston, S. W. 1898 E, p. 189. (*Platecarpus.*)
 Cretaceous (*Niobrara*); Kansas.

***Lestosaurus? latispinus* (Cope).**

- Cope, E. D. 1871 J, p. 169. (*Liodon.*)
 1871 N, p. 276. (*Liodon.*)
 1872 F, p. 332. (*Liodon.*)
 1874 C, p. 36. (*Liodon.*)
 1875 E, pp. 155, 268, pl. xxvi, figs. 1-4. (*Platecarpus?*)
- Williston, S. W. 1898 E, p. 181. (*Platecarpus?*)
 Cretaceous (*Niobrara*); Kansas.

***Lestosaurus mudgei* (Cope).**

- Cope, E. D. 1870 Q. (*Liodon.*)
 1870 O, p. 581. (*Liodon.*)
 1871 D, p. 405. (*Liodon.*)
 1871 N, p. 273. (*Holcodus.*)
 1872 F, p. 331. (*Holcodus.*)
 1874 C, p. 36. (*Platecarpus.*)
 1875 E, pp. 157, 268, pl. xvi, fig. 2; pl. xvii, fig. 5; pl. xxvi, figs. 2, 3; pl. xxxvii, fig. 7. (*Platecarpus.*)
- Marsh, O. C. 1872 F, p. 463, pl. xlii. (*Rhinosaurus.*)
 Williston, S. W. 1898 E, p. 186. (*Platecarpus.*)
 Cretaceous (*Niobrara*); Kansas.

***Lestosaurus oxyrhinus* (Merriam).**

- Merriam, J. C. 1894 A, p. 30. (*Platecarpus.*)
 Williston, S. W. 1898 E, p. 190. (*Platecarpus.*)
 Cretaceous; Kansas.

***Lestosaurus planifrons* (Cope).**

- Cope, E. D. 1874 C, p. 31. (*Clidastes.*)
 1875 E, pp. 135, 265; pl. xxii, figs. 1-7; pl. xxiii, figs. 1-15; pl. xxxv, fig. 16. (*Clidastes.*)
 1878 G, p. 299. (*Clidastes.*)
- Williston, S. W. 1898 E, pp. 188, 194. (*Platecarpus.*)
 Williston and Case 1892 A, p. 17. (*Clidastes.*)
 Cretaceous (*Niobrara*); Kansas.

***Lestosaurus simus* Marsh.**

- Marsh, O. C. 1872 F, p. 455, pla. x, xi.
- Cope, E. D. 1874 C, p. 36. (*Platecarpus.*)
 1875 E, p. 268. (*Platecarpus.*)

Marsh, O. C. 1880 A, p. 86, pl. i.

1897 C, p. 527.

Merriam, J. C. 1894 A, p. 30. (Platecarpus.)

Owen, R. 1880 A, pl. viii, figs. 2, 3.

Williston, S. W. 1898 E, p. 188, pl. xlvii. (Platecarpus.)

Woodward, A. S. 1898 B, p. 193, fig. 117.

Zittel, K. A. 1890 A, p. 622, figs. 550, 552.

Cretaceous (Niobrara); Kansas.

Lestosaurus tectulus (Cope).

Cope, E. D. 1871 N, p. 271. (Holcodusa.)

1872 F, p. 331. (Holcodusa.)

1874 C, p. 36. (Platecarpus.)

1875 E, pp. 159, 269; pl. xxi, figs. 3-6; pl. xxvii, figs. 5-10. (Platecarpus.)

Williston, S. W. 1898 E, p. 183. (Platecarpus.)

Cretaceous (Pierre); Kansas.

BRACHYSAURUS Willist. Type *B. overtoni* Willist.

Williston, S. W. 1897 D.

1897 F, p. 178.

1897 H, p. 246.

1898 E, p. 192.

Brachysaurus overtoni Willist.

Williston, S. W. 1897 D, p. 96, pl. viii.

1898 E, pp. 148, 192, pl. xxii; pl. xxx; pl. xi, figs. 10, 11; pl. lxii, fig. 1.

Cretaceous (Pierre); Kansas.

HOLOSAURUS Marsh. Type *H. abruptus* Marsh.

Marsh, O. C. 1880 A, p. 87.

Dollo L. 1893 C, p. 221.

Williston, S. W. 1897 H, p. 245. (Syn. of Platecarpus.)

1897 J, p. 107.

1898 E, p. 192.

Zittel, K. A. 1890 A, p. 624.

Holosaurus abruptus Marsh.

Marsh, O. C. 1880 A, p. 87.

1897 C, p. 527.

Williston, S. W. 1898 E, p. 193.

Cretaceous (Niobrara); Kansas.

TYLOSAURINÆ.

Williston, S. W. 1897 F, pp. 177, 180.

Marsh, O. C. 1876 G, p. 59. (Tylosauridæ.)

Williston, S. W. 1896 A, p. 169. (Tylosauridæ.)

1898 E, pp. 90, 171.

MACROSAURUS Owen. Type *M. lævis* Owen.

Owen, R. 1849 A, p. 382.

Cope, E. D. 1869 M, p. 200. (Syn. of Liodon.)

1875 E, p. 270. (Syn. of Liodon.)

Gibbes, R. W. 1851 A, p. 13.

Ledy, J. 1865 A, p. 74.

Zittel, K. A. 1890 A, p. 622. (Syn. of Liodon.)

Macrosaurus lævis Owen.

Owen, R. 1849 A, p. 382, pl. xi, figs. 1-6.

Cope, E. D. 1867 E, p. 26.

1869 A, p. 260.

1869 B, p. 734.

1869 M, pp. 205, in part. (Liodon.)

1875 E, p. 270. (Liodon.)

Ledy, J. 1865 A, pp. 74, 118.

1865 D, p. 70.

Owen, R. 1879 B, p. 54. (Liodon.)

Cretaceous; New Jersey.

Macrosaurus mitchillii (De Kay).

De Kay, J. E. 1830 A, p. 140, pl. iii, figs. 3, 4. (Geosaurus.)

Cope, E. D. 1869 A, p. 261. (Mosasaurus impar.)

1869 M, pp. 193, 205. (Liodon.)

1871 G, p. 43. (Liodon.)

1875 E, p. 270. (Liodon.)

1875 V, p. 41. (Liodon.)

De Kay, J. E. 1842 A, p. 28, pl. xxii, figs. 55, 56. (Geosaurus.)

Emmons, E. 1858 B, p. 224, figs. 45, 46. (Drepanodon impar.)

Gibbes, R. W. 1851 A, p. 9. (Geosaurus.)

Giebel, C. G. 1847 B, p. 134. (Geosaurus.)

Harlan, R. 1834 B, p. 82. (Geosaurus.)

1835 B, p. 285. (Geosaurus.)

Ledy, J. 1856 L, p. 255. (Drepanodon impar.)

1857 A, p. 271. (Drepanodon impar.)

1859 B, p. 10. (Lesticodus impar.)

1859 D, p. 92. (Geosaurus.)

1835 A, p. 65, pl. xi, figs. 1-4, *Ade* Cope. (Mosasaurus mitchillii.)

1865 D, p. 70 in part.

Williston, S. W. 1897 F, pp. 182, 183. (Tylosaurus.)

1898 E, p. 172. (Tylosaurus.)

Cretaceous; New Jersey.

TYLOSAURUS Marsh. Type *T. micromus* Marsh.

Marsh, O. C. 1872 H, p. 147. (To replace Rhinosaurus Marsh and Rhamphosaurus Cope, both preoccupied.)

Since the American species assigned to *Tylosaurus* may prove to be congeneric with those

called by Owen *Leiodon* and by others *Liodon*, references to literature of the latter title is given. *Leiodon* is, however, preoccupied by Swainson, 1839.

Charlesworth, E. 1846 A. (Liodon.)

- Cope, E. D. 1869 M, p. 200. (Liodon.)
 1871 D, p. 401. (Liodon.)
 1871 N, p. 273. (Liodon.)
 1872 F, p. 331. (Liodon.)
 1872 CC, p. 141. (Rhamphosaurus, to replace Rhinosaurus.)
 1874 C, pp. 81, 36, 37. (Liodon, Nectoporthus.)
 1875 E, pp. 128, 160, 271. (Liodon, Nectoporthus.)
 1878 G. (Liodon.)
 1879 J. (Liodon.)
 Dollo, L. 1885 C, pp. 28, 30. (Liodon, Tylosaurus.)
 Gaudry, A. 1892 A, p. 2. (Liodon.)
 Leidy, J. 1873 B, p. 348.
 Lydekker, R. 1888 B, p. 264. (Liodon.)
 Marsh, O. C. 1872 C, p. 291. (Liodon.)
 1872 F, pp. 455, 461. (Rhinosaurus, type R. micromus.)
 1880 A, p. 84.
 Merriam, J. C. 1894 A, p. 14,
 Nicholson and Lydekker 1889 A, p. 1144.
 Osborn, H. F. 1899 D, p. 167.
 Owen, R. 1842 A, p. 144. (Liodon, type L. anceps Owen.)
 1845 B, p. 261, pl. lxxii. (Liodon.)
 1861 B, p. 41. (Liodon.)
 1879 B. (Liodon.)
 1880 A. (Liodon.)
 Pictet, F. J. 1853 A, p. 507. (Liodon.)
 Snow, F. H. 1878 A, p. 54. (Liodon.)
 Steinmann and Döderlein 1890 A, p. 646. (Liodon.)
 Williston, S. W. 1891 A. (Liodon.)
 1897 E.
 1897 F, p. 177.
 1897 J, p. 108.
 1898 E, p. 171.
 Zittel, K. A. 1890 A, p. 622. (Liodon.)
- Tylosaurus congrops (Cope).**
 Cope, E. D. 1869 M, p. 206. (Liodon.)
 1870 D, p. 271. (Liodon.)
 1875 E, p. 272. (Liodon.)
 Cretaceous; Alabama.
- Tylosaurus dyspelor (Cope).**
 Cope, E. D. 1870 Q. (Liodon.)
 1870 O, p. 574. (Liodon.)
 1871 D, p. 410. (Liodon.)
 1871 J, p. 169. (Liodon.)
 1871 K, p. 174. (Liodon.)
 1871 N, p. 280. (Liodon.)
 1872 F, pp. 321, 333. (Liodon.)
 1872 CC, p. 141. (Liodon.)
 1874 C, p. 38. (Liodon.)
 1875 E, pp. 46, 167, 271, pl. xxvii, fig. 11; pl. xxviii, figs. 1-7; pls. xxix-xxxiii; pl. xxx i, fig. 1; pl. xxxvii, fig. 5. (Liodon.)
 Gibbs, R. W. 1851 A, p. 6. (Liodon.)
 Leidy, J. 1873 B, pp. 271, 343, pl. xxxv, figs. 1-11.
 Marsh, O. C. 1872 F, p. 463. (Rhinosaurus.)
 1872 T, p. 496. (Liodon.)
 Merriam, J. C. 1894 A, p. 23, pl. iv, figs. 3, 4.
 Osborn, H. F. 1899 D, p. 167, pls. xxi-xxiii, text figs. 1, 7-9, 11-14.
 1899 F, p. 913.

- Snow, F. H. 1878 A, p. 54. (Liodon.)
 Williston, S. W. 1898 E, p. 145 *et seq.*, pl. xliii, figs. 1, 2; pl. xlvi, fig. 4; pl. lix; pl. lxi, figs. 1, 2.
 1897 J, p. 110.
 Cretaceous (Niobrara); New Mexico, Kansas.

Tylosaurus laticaudus (Marsh).

- Marsh, O. C. 1870 F. (Liodon.)
 Cretaceous; New Jersey.

Tylosaurus micromus Marsh.

- Marsh, O. C. 1872 F, p. 461, pl. xliii. (Rhinosaurus.)
 Cope, E. D. 1874 C, p. 36. (Liodon.)
 1875 E, p. 271. (Liodon.)
 Marsh, O. C. 1880 A, p. 85, fig. 1.
 Merriam, J. C. 1894 A, p. 23, pl. i, fig. 3; pl. iii, fig. 8.
 Williston, S. W. 1898 E, p. 175.
 Cretaceous (Niobrara); Kansas.

Tylosaurus nepœolicus (Cope).

- Cope, E. D. 1874 C, p. 37. (Liodon, Rhamphosaurus.)
 1875 E, pp. 177, 271, pl. xxxv, figs. 11-13. (Liodon.)
 Williston, S. W. 1898 E, p. 176.
 Cretaceous (Niobrara); Kansas.

Tylosaurus perlatus (Cope).

- Cope, E. D. 1869 M (1870), p. ii of Errata and Addenda (Liodon); p. 198 ("Mosasaurus brumbi").
 1870 J, p. 497. (Liodon.)
 1875 E, p. 271. (Liodon.)
 Lydekker, R. 1888 B, p. 267. (Liodon.)
 Cretaceous; Alabama.

Tylosaurus proriger (Cope).

- Cope, E. D. 1869 H, p. 123. (Macrosaurus.)
 Ballou, W. H. 1898 A, pp. 217, 224, figure.
 Cope, E. D. 1869 M, p. 202, pl. xii, figs. 22-24. (Liodon.)
 1871 A. (Liodon.)
 1871 D, p. 401. (Liodon.)
 1871 K, p. 175. (Liodon.)
 1871 N, p. 271. (Liodon.)
 1872 F, pp. 321, 333. (Liodon.)
 1872 CC, p. 141. (Rhamphosaurus, provisionally.)
 1874 C, p. 38. (Liodon.)
 1875 E, pp. 46, 161, 271, pl. xxviii, figs. 8, 9; pl. xxx, figs. 10-14; pl. xxxvi, fig. 2; pl. xxxvii, fig. 6. (Liodon.)
 Leidy, J. 1870 E, p. 4. (Liodon.)
 1873 B, pp. 274, 344, pl. xxxv, fig. 13; pl. xxxvi, figs. 1-3.
 Marsh, O. C. 1872 F, p. 463. (Rhinosaurus.)
 Merriam, J. C. 1894 A, p. 23, pl. ii; pl. iii, figs. 1, 2.
 Osborn, H. F. 1899 D, p. 169.
 Williston, S. W. 1897 E, p. 102, pls. ix, x.
 1897 F, pl. xx.
 1897 J, p. 110.
 1898 E, p. 173, pls. xvi-xviii; pl. xxix, fig. 1; pl. xl, figs. 1-7; pl. xli, fig. 1; pl. xlviii, fig. 7; pl. lv; pl. lx, figs. 1, 2; pls. lxx-lxx; pl. lxxii, fig. 3.
 Cretaceous (Niobrara); Kansas.

Tylosaurus rapax sp. nov.

Cope, E. D. 1869 M, p. 187, text fig. 48^b; p. 188, text fig. 49^a; pp. 201, 207. (Liodon validus; not *Nectoporphus validus* Cope, 1868.)
1870 D, p. 272. (Liodon validus.)
1875 E, p. 271, pl. xxxvii, fig. 4. (Liodon validus.)

Leidy, J. 1865 A, p. 74, in part, pl. iii, figs. 1-2; pl. vii, figs. 19, 20. (*Macrosaurus laevis*.)
Cretaceous; New Jersey.

Tylosaurus sectorius (Cope).

Cope, E. D. 1871 G, p. 41. (Liodon.)
1875 E, p. 271. (Liodon.)
Cretaceous; New Jersey.

DIPLOTOMODON Leidy. Type *D. horrificus* Leidy.

Leidy, J. 1868 G, p. 202. (To replace Tomodon, preoccupied.)

Cope, E. D. 1868 C, p. 417. (Tomodon.)
1875 E, p. 272.

Leidy, J. 1865 A, p. 102. (Tomodon, type *T. horrificus*; not Tomodon Duméril, 1853.)

Zittel, K. A. 1890 A, pp. 624, 727.

Diplotomodon horrificus Leidy.

Leidy, J. 1865 A, pp. 102, 119, pl. xx, figs. 7-9. (Tomodon.)
Cope, E. D. 1875 E, p. 272.
Leidy, J. 1865 D, p. 72. (Tomodon.)
1868 G, p. 202.
Cretaceous; New Jersey.

ELLIPTONODON Emmons. Type *E. compressus* Emmons.

Emmons, E. 1858 B, p. 222.

A genus whose value and systematic position are doubtful.

Elliptonodon compressus Emmons.

Emmons, E. 1858 B, p. 222, figs. 41, 42.
Cope, E. D. 1869 M, p. 186.
Leidy, J. 1865 A, pp. 63, 117.
Cretaceous; North Carolina.

POLYGONODON Leidy. Type *P. vetus* Leidy.

Leidy, J. 1856 K, p. 221.

Cope, E. D. 1869 M, pp. 185, 210.

A genus of uncertain ordinal position.

Polygonodon rectus Emmons.

Emmons, E. 1858 B, p. 218 (*Mosasaurus*); fig. 37 A (*Polygonodon*).

Cope, E. D. 1869 M, p. 211.
1875 V, p. 41.

Emmons, E. 1860 A, p. 208, fig. 180².

Leidy, J. 1865 A, pp. 76, 118. (Syn. of *P. vetus*.)
Miocene; North Carolina.

Polygonodon vetus Leidy.

Leidy, J. 1856 K, p. 221.
Cope, E. D. 1869 B, p. 734.
1869 M, p. 210.
1875 E, p. 280.
Leidy, J. 1865 A, pp. 76, 118, pl. ix, figs. 12, 13.
1865 D, p. 70.
Cretaceous; New Jersey.

Suborder SAURIA Macartney.

Macartney, J., 1802, Lectures on Comp. Anat., i, tab. 8.

Unless otherwise indicated, the following authors use the term *Lacertilia* for this order.

Baur, G. 1885 E, p. 634.
1887 C, p. 99.

1895 A.

1895 D.

1896 A.

Born, G. 1876 A. ("Saurier.")

1880 A, p. 63. ("Saurier.")

Boulenger, G. A. 1884 A.

1885 A.

1887 A.

1891 A.

1893 A, p. 1.

1895 A.

Burckhardt, C. K. 1895 A.

Calori, L. 1894 A.

Cope, E. D. 1864 A.

1869 M, p. 28.

Cope, E. D. 1871 B.

1878 G, p. 300.

1882 J, p. 961.

1887 S, p. 334.

1891 N, pp. 45, 47.

1892 F.

1892 Z, p. 19.

1895 C, p. 857.

1895 D.

1896 A.

1896 B.

1898 B, p. 74.

Cuvier, G. 1834 A, x, pp. 1-98.

Dollo, L. 1885 B.

Fürbringer, M. 1900 A, pp. 231, 537, 605, 620.

Gadow, H. 1896 A, p. 29.

1898 A, p. 24. (Sauria.)

Gaupp, E. 1894 A.

1895 B.

1898 A, p. 302.

1900 A.

Gegenbaur, C. 1864 A.

1865 B, p. 40.

1898 A.

Gill, T. 1900 A, p. 730.

Gorski, C. 1858 A.

Günther, A. 1886 A, p. 444.

Haeckel, E. 1895 A, p. 344.

Hoffmann, C. K. 1876 A.

1878 A.

1879 A, p. 99.

1890 B. (Sauril.)

Huxley, T. H. 1870 A.

1872 A, p. 186.

1876 B, xlii, p. 429.

Leidy, J. 1871 C, p. 368.

Levy, H. 1898 A.

Lydekker, R. 1888 B, p. 275.

Marsh, O. C. 1877 E.

Mivart, St. G. 1886 A, p. 448.

Müller, J. 1831 A, p. 238. (Lacertina.)

Nicholson and Lydekker 1889 A, p. 1138.

Osborn, H. F. 1900 A, p. 1

Owen, R. 1842 A, p. 144.

1860 A, p. 165.

1866 A.

1877 A.

Parker, W. K. 168 A, p. 100.

1879 B, p. 63.

1880 A.

Rathke, H. 1853 A. ("Saurier.")

Segond, L. A. 1873 A, p. 14. ("Lézard.")

Siebenrock, F. 1892 A.

1893 A.

1894 A.

1895 A.

1895 B.

Stannius, H. 1856 A. (Sauria.)

Steinmann and Döderlein 1890 A, p. 644.

Tomes, C. S. 1898 A, p. 270. ("Sauriana.")

Wiedersheim, R. 1889 A, p. 438.

Zittel, K. A. 1890 A, pp. 450, 602.

IGUANIDÆ.

Gray, J. E., 1827, Philos. Mag. (2), ii, p. 127.

Boulenger, G. A. 1884 A, p. 119.

1885 A, p. 1.

Cope, E. D. 1864 A, p. 227. (Anolidæ, Iguanidæ.)

1900 A, p. 220.

Gadow, H. 1898 A, p. 25.

Hoffmann, C. K. 1890 B, p. 1217.

Lydekker, R. 1888 B, p. 277.

Parker, W. K. 1868 A, p. 107. (Iguana.)

Siebenrock, F. 1895 B. (On Agamidæ.)

Stannius, H. 1856 A. (Iguanoidæ.)

Zittel, K. A. 1890 A, p. 607.

IGUANAVUS Marsh. Type *I. exilis* Marsh.

Marsh, O. C. 1872 K, p. 309.

Nicholson and Lydekker 1889 A, p. 1140.

Iguanavus exilis Marsh.

Marsh, O. C. 1872 K, p. 309.

King, C. 1878 A, p. 405.

Eocene (Bridger); Wyoming.

Iguanavus teres Marsh.

Marsh, O. C. 1892 E, p. 451.

Cretaceous (Laramie); Wyoming.

CHAMOPS Marsh. Type *C. segnis* Marsh.

Marsh, O. C. 1892 E, p. 450.

Provisionally assigned to the *Iguanidæ*.

Chamops segnis Marsh.

Marsh, O. C. 1892 E, p. 450, figs. 2, 3.

Cretaceous (Laramie); Wyoming.

ANGUIDÆ.

Cope, E. D. 1864 A, pp. 227, 228. (Anguidæ, Gerrhonotidæ.)

Boulenger, G. A. 1884 A, p. 121.

1885 A, ii, p. 265.

Cope, E. D. 1877 K, p. 42. (Placosauridæ.)

1882 J, p. 981. (Placosauridæ.)

1884 O, p. 772. (Gerrhonotidæ.)

1900 A, p. 488.

Gadow, H. 1898 A, p. 25.

Gaupp, E. 1898 A. (Anguis.)

Hoffmann, C. K. 1890 B. (Anguis.)

Lydekker, R. 1888 B, p. 278.

Marsh, O. C. 1877 E, p. 222. (Glyptosauridæ.)

Nicholson and Lydekker 1889 A, p. 1140.

Parker, W. K. 1868 A, p. 98.

Siebenrock, F. 1892 A.

1895 A.

Zittel, K. A. 1890 A, p. 607.

PLACOSAURUS Gervais. Type *P. rugosus* Gervais.

Gervais, P., 1852, Zool. Paléont. France, ed. 1, p. 260.

Lydekker, R. 1888 C, p. 110.

Nicholson and Lydekker 1889 A, p. 1140.

Pictet, Gaudin, and Harpe 1857 A, p. 93.

Zittel, K. A. 1890 A, p. 608.

Placosaurus ? sp. indet.

Cope, E. D. 1877 K, p. 42, pl. xxxii, figs. 26-36.

Eocene; New Mexico.

The fossil fragments above described Professor Cope referred with doubt to the *Placosauridæ*.

GLYPTOSAURUS Marsh. Type *G. sylvestris* Marsh.

- Marsh, O. C.* 1871 B, p. 456.
Boulenger, G. A. 1891 A, p. 117.
Cope, E. D. 1875 C, p. 34.
Leidy, J. 1872 B, p. 371.
 1873 B, p. 182.
Marsh, O. C. 1871 G, p. 105.
 1872 K, p. 302.
Nicholson and Lydekker 1889 A, p. 1141.
Zittel, K. A. 1890 A, p. 608.

Glyptosaurus anceps Marsh.

- Marsh, O. C.* 1871 B, p. 458.
 1871 G, p. 105.
 Eocene (Bridger); Wyoming.

Glyptosaurus brevidens Marsh.

- Marsh, O. C.* 1872 K, p. 306.
 Eocene (Bridger); Wyoming.

Glyptosaurus nodosus Marsh.

- Marsh, O. C.* 1871 B, p. 458.
 1871 G, p. 105.
 Eocene (Bridger); Wyoming.

Glyptosaurus ocellatus Marsh.

- Marsh, O. C.* 1871 B, p. 458.
 ? *Leidy, J.* 1873 B, p. 183, pl. xvi, figs. 13-17.
Marsh, O. C. 1871 G, p. 105.
 1872 K, p. 306.
 Eocene (Bridger); Wyoming.

Glyptosaurus princeps Marsh.

- Marsh, O. C.* 1872 K, p. 302.
King, C. 1878 A, p. 405.
 Eocene (Bridger); Wyoming.

Glyptosaurus rugosus Marsh.

- Marsh, O. C.* 1872 K, p. 305.
 Eocene (Bridger); Wyoming.

Glyptosaurus sphenodon Marsh.

- Marsh, O. C.* 1872 K, p. 306.
 Eocene (Bridger); Wyoming.

Glyptosaurus sylvestris Marsh.

- Marsh, O. C.* 1871 B, p. 456.
 1871 G, p. 105.
 Eocene (Bridger); Wyoming.

XESTOPS Cope. Type *Oreosaurus vagans* Marsh.

- Cope, E. D.* 1873 CC, p. 19. (To replace *Oreosaurus* Marsh, preoccupied.)
Marsh, O. C. 1872 K, p. 303. (*Oreosaurus*, type *O. vagans*; not *Oreosaurus* Peters, 1862.)
Nicholson and Lydekker 1889 A, p. 1141.
Zittel, K. A. 1890 A, p. 608.

Xestops gracilis (Marsh).

- Marsh, O. C.* 1872 K, p. 307. (*Oreosaurus*.)
 Eocene (Bridger); Wyoming.

Xestops lentus (Marsh).

- Marsh, O. C.* 1872 K, p. 307. (*Oreosaurus*.)
King, C. 1878 A, p. 405.
 Eocene (Bridger); Wyoming.

Xestops microdus (Marsh).

- Marsh, O. C.* 1872 K, p. 308. (*Oreosaurus*.)
 Eocene (Bridger); Wyoming.

Xestops minutus (Marsh).

- Marsh, O. C.* 1872 K, p. 308. (*Oreosaurus*.)
 Eocene (Bridger); Wyoming.

Xestops vagans (Marsh).

- Marsh, O. C.* 1872 K, p. 308. (*Oreosaurus*.)
 Eocene (Bridger); Wyoming.

SANIWA Leidy. Type *S. ensidens* Leidy.

- Leidy, J.* 1870 S, p. 124.
 1871 C, p. 368.
 1872 B, p. 370.
 1873 B, p. 181. (*Saniva*.)
Marsh, O. C. 1872 K, p. 299.
Nicholson and Lydekker 1889 A, p. 1141. (*Saniva*.)
Zittel, K. A. 1890 A, p. 608. (*Saniva*.)

Saniwa ensidens Leidy.

- Leidy, J.* 1870 S, p. 124.
Cope, E. D. 1873 E, p. 632. (*Saniva*.)
King, C. 1878 A, p. 405.

- Leidy, J.* 1871 C, p. 368.
 1872 B, p. 370.
 1873 B, pp. 181, 344, pl. xv, fig. 15; pl. xxvii, fig. 35. (*Saniva*.)
Marsh, O. C. 1871 B, p. 457. (*Saniva*.)
 Eocene (Bridger); Wyoming.

Saniwa major Leidy.

- Leidy, J.* 1873 B, pp. 182, 345, pl. xv, fig. 14; pl. xxvii, figs. 36, 37. (*Saniva*.)
 Eocene (Bridger); Wyoming.

PELTOSAURUS Cope. Type *P. granulosis* Cope.

- Cope, E. D.* 1873 S, p. 5.
 1873 CC, p. 19.
 1874 B, p. 512.
 1884 O, p. 771.
Hoffmann, C. K. 1890 B, p. 1324.
Nicholson and Lydekker 1889 A, p. 1140.
Zittel, K. A. 1890 A, p. 608.

Peltosaurus granulosis Cope.

- Cope, E. D.* 1873 S, p. 5.
 1873 CC, p. 19.
 1874 B, p. 513.
 1874 H.
 1884 O, p. 773, pl. ix, figs. 3-11.
 Miocene; Colorado.

EXOSTINUS Cope. Type *E. serratus* Cope.

Cope, E. D. 1873 CC, pp. 16, 19.

1874 B, p. 518.

1884 O, p. 775.

Nicholson and Lydekker 1889 A, p. 1140.

Zittel, K. A. 1890 A, p. 610.

Exostinus serratus Cope.

Cope, E. D. 1873 CC, p. 16.

1874 B, p. 514.

1884 O, p. 776, pl. lx, figs. 12-14.

Oligocene (White River); Colorado.

VARANIDÆ.

Cope, E. D. 1864 A, p. 227.

Baur, G. 1890 A, p. 292.

Beddard, F. E. 1888 A.

Boulenger, G. A. 1884 A, p. 122.

1885 A, p. 308.

1891 A, p. 117.

Cope, E. D. 1878 G, p. 305.

1900 A, p. 470.

Dollo, L. 1893 C, p. 252.

Fürbringer, M. 1900 A.

Gadow, H. 1898 A, p. 26.

Hoffmann, C. K. 1900 B, p. 1068. (Monitoridæ.)

Lydekker, R. 1888 B, p. 281.

Parker, W. K. 1868 A, p. 116. (Monitor.)

Stannius, H. 1856 A. (Varani.)

Zittel, K. A. 1890 A, p. 608.

THINOSAURUS Marsh. Type *T. paucidens* Marsh.

Marsh, O. C. 1872 K, p. 299.

Boulenger, G. A. 1891 A, p. 115.

Hoffmann, C. K. 1890 B, p. 1824.

Zittel, K. A. 1890 A, p. 609.

Thinosauros agilis Marsh.

Marsh, O. C. 1872 K, p. 302.

Eocene (Bridger); Wyoming.

Thinosauros crassus Marsh.

Marsh, O. C. 1892 K, p. 301.

Eocene (Bridger); Wyoming.

Thinosauros grandis Marsh.

Marsh, O. C. 1872 K, p. 301.

Eocene (Bridger); Wyoming.

Thinosauros leptodus Marsh.

Marsh, O. C. 1872 K, p. 300.

Cope, E. D. 1873 E, p. 682.

Kling, C. 1878 A, p. 406.

Eocene (Bridger); Wyoming.

Thinosauros paucidens Marsh.

Marsh, O. C. 1872 K, p. 299.

Eocene (Bridger); Wyoming.

TINOSAURUS Marsh. Type *T. stenodon* Marsh.

Marsh, O. C. 1872 K, p. 304.

Zittel, K. A. 1890 A, p. 609.

The position of this genus is uncertain.

Tinosaurus lepidus Marsh.

Marsh, O. C. 1872 K, p. 308.

Eocene (Bridger); Wyoming.

Tinosaurus stenodon Marsh.

Marsh, O. C. 1872 K, p. 304.

Eocene (Bridger); Wyoming.

AMPHISBÆNIDÆ.

Gray, J. E., 1825, Philos. Mag. (2), x.

Baur, G. 1893 C. (Amphisbænidae; Hypeorhini-
dæ.)

Boulenger, G. A. 1884 A.

1885 A, p. 430.

Cope, E. D. 1864 A, p. 226. (Amphisbænia.)

1871 B.

1900 A, p. 682.

Fürbringer, M. 1900 A, pp. 258, 539, 616, 622. (Am-
phisbænia; Amphisbænidae.)

Gadow, 1898 A, p. 27.

Gervais, P. 1853 A, p. 298. ("Amphisbæna.")

Haeckel, E. 1896 A, p. 349. (Glyptoderma.)

Hoffmann, C. K. 1890 B, p. 1288.

Müller, J. 1831 A, p. 253. (Amphisbænoides.)

Owen, R. 1845 B, p. 334. (Amphisbæna.)

Parker, W. K. 1868 A, p. 95. (Amphisbæna.)

Stannius, H. 1856 A. (Amphisbænoida.)

RHINETRA Cope. Type *R. floridana* Cope.

Cope, E. D., 1861, Proc. Acad. Nat. Sci. Phila., p. 75.

Boulenger, G. A. 1885 A, p. 459.

Cope, E. D. 1900 A, p. 684.

Fürbringer, M. 1900 A, p. 265.

Rhineträ hatcherii Baur.

Baur, G. 1893 C.

Oligocene (White River); South Dakota.

HYPSORHINA Baur. Type *H. antiqua* Baur.

Baur, G. 1898 C.

Hypsorhina antiqua Baur.

Baur, G. 1898 C.

Oligocene (White River); South Dakota.

TYLOSTEUS Leidy. Type *T. ornatus* Leidy.

Leidy, J. 1872 E, p. 40.

1873 B, p. 285.

The position of this fossil is doubtful. It is not improbably a portion of the dermal armor of some Dinosaur.

Tylosteus ornatus Leidy.

Leidy, J. 1872 E, p. 40.

1873 B, pp. 285, 345, pl. xix, fig. 14; fig. 137.

Cretaceous; Montana? (Head of Missouri River.)

ACIPRION Cope. Type *A. formosum* Cope.

Cope, E. D. 1873 CC, p. 17.

1874 B, p. 514.

1884 O, p. 776.

Aciprion formosum Cope.

Cope, E. D. 1873 CC, p. 17.

1874 B, p. 514.

1884 O, p. 776, pl. lx, fig. 15.

Oligocene (White River); South Dakota.

DIACIUM Cope. Type *D. quinquepedale* Cope.

Cope, E. D. 1873 CC, p. 17.

1874 B, p. 514.

1884 O, p. 777.

Diacium quinquepedale Cope.

Cope, E. D. 1873 CC, p. 17.

1874 B, p. 514.

1884 O, p. 777, pl. lx, fig. 20.

Oligocene (White River); Colorado.

CREMASTOSAURUS Cope. Type *C. carinicollis* Cope.

Cope, E. D. 1873 CC, p. 18.

1874 B, p. 515.

1884 O, p. 780.

Crematosaurus carinicollis Cope.

Cope, E. D. 1873 CC, p. 18.

1874 B, p. 515. (In part.)

1884 O, pp. 779, 781, pl. lx, fig. 16.

Oligocene (White River); Colorado.

PLATYRHACHIS Cope. Type *P. coloradoensis* Cope.

Cope, E. D. 1873 CC, p. 19.

1874 B, p. 516.

1884 O, p. 777.

Platyrhachis coloradoensis Cope.

Cope, E. D. 1873 CC, p. 19.

1874 B, p. 516.

1884 O, p. 778, pl. lx, fig. 17.

Oligocene (White River); Colorado.

Platyrhachis rhambastes Cope.

Cope, E. D. 1884 O, p. 779, pl. lx, fig. 18.

1874 B, p. 516. (Crematosaurus carinicollis, in part.)

Oligocene (White River); Colorado.

Platyrhachis unipedalis Cope.

Cope, E. D. 1873 CC, p. 18. (Diacium.)

1874 B, p. 516. (Crematosaurus.)

1884 O, p. 779, pl. lx, fig. 19.

Oligocene (White River); Colorado.

NAOCEPHALUS Cope. Type *N. porrectus* Cope.

Cope, E. D. 1872 M, p. 465.

1873 E, p. 631.

A genus of uncertain affinities.

Naocephalus porrectus Cope.

Cope, E. D. 1872 M, p. 465.

1873 E, p. 632.

Eocene (Bridger); Wyoming.

Suborder RHIPTOGLOSSI Wiegmann.

- Wiegmann, A. F. A., 1834, *Herp. Mex.*, p. 13.
 Boulenger, G. A. 1884 A, p. 120. (Rhaptoglossa.)
 1887 A, p. 437. (Rhaptoglossa.)
 1891 A, p. 117. (Rhaptoglossa.)
 Cope, E. D. 1864 A. (Rhaptoglossa.)
 1896 C, p. 859. (Rhaptoglossa.)
 1900 A, p. 206. (Rhaptoglossa.)
 Dollo, L. 1893 C, p. 259.

- Fürbringer, M. 1900 A, pp. 265, 586, 619, 622.
 (Chamaeleontina.)
 Gadow, H. 1898 A, p. 27. (Chamaeleontes.)
 Haeckel, E. 1896 A, p. 348. (Chamaeleontes.)
 Nicholson and Lydekker 1889 A, p. 1142. (Rhaptoglossa.)
 Tomes, C. S. 1898 A, p. 272. ("Chamaeleons.")
 Stannius, H. 1856 A. (Chamaeleonidea.)

CHAMÆLEONIDÆ.

- Gray, J. E. 1825, *Ann. Philos.* (2), x, p. 200.
 Boulenger, G. A. 1884 A, p. 120.
 1887 A, p. 437.
 Cope, E. D. 1896 C, p. 859.

- Cope, E. D. 1900 A, p. 209.
 Hoffmann, C. K. 1890 B, p. 1280.
 Nicholson and Lydekker 1889 A, p. 1142.
 Siebenrock, F. 1893 B.

CHAMÆLEO Laurenti.

- Laurenti, J. N., 1768, *Syn. Rept.*, p. 45.
 Born, G. 1876 A, p. 21.
 Boulenger, G. A. 1887 A, p. 438. (Chamaeleon.)
 Cope, E. D. 1900 A, p. 211. (Chamaeleon.)
 Dealongchamps-Eudes, J. A. 1838 A, p. 96. ("Caméléon.")
 Fürbringer, M. 1900 A.
 Hoffmann, C. K. 1890 B, pp. 450, 1280.
 Parker, W. K. 1868 A, p. 122.

- Rathke, H. 1853 A, p. 25.
 Siebenrock, F. 1893 B.
 Stecker, A. 1877 A. (Chamaeleon.)

Chamaeleo pristinus Leidy.

- Leidy, J. 1872 J, p. 277.
 1873 B, pp. 184, 345, pl. xxvii, figs. 35, 39.
 Eocene; Wyoming.

Suborder SERPENTES Linn.

- Linnaeus, C., 1758, *Syst. Nat.*, ed. x, p. 194.
 The following authorities, unless otherwise indicated, refer to this group under the name *Ophidia*.
 Baur, G. 1887 C, p. 99.
 1895 A.
 1896 A.
 Boulenger, G. A. 1893 A.
 1895 A.
 1896 A.
 1896 C.
 Calori, L. 1894 A.
 Cope, E. D. 1864 A.
 1871 B.
 1878 G, p. 300.
 1882 J, p. 981.
 1886 V.
 1887 S, p. 334.
 1891 N, pp. 45, 50.
 1892 Z, p. 20.
 1895 C, p. 857.
 1895 D.
 1896 A.
 1896 B.
 1898 B, p. 75 (Serpentes); p. 79 (Ophidia).
 Fürbringer, M. 1900 A.
 Gadow, H. 1899 A, p. 471.

- Gadow, H. 1898 A, p. 28.
 Gill, T. 1900 A, p. 780.
 Günther, A. C. 1886 A, p. 445.
 Haeckel, E. 1896 A, p. 353. (Serpentes.)
 Hoffmann, C. K. 1890 C.
 Huxley, T. H. 1872 A, p. 200.
 Levy, H. 1900 A.
 Lydekker, R. 1888 B, p. 249.
 Marsh, O. C. 1877 E.
 Müller, J. 1831 A, p. 263.
 Nicholson and Lydekker 1889 A, p. 1146.
 Owen, R. 1845 B, p. 219.
 1850 A, p. 51.
 1860 A, p. 166.
 1866 A.
 1877 A.
 Parker, W. K. 1879 A.
 1879 B.
 Pictet, F. J. 1853 A, p. 555. ("Ophidiens.")
 Rochebrune, A. T. 1881 A.
 Segond, L. A. 1878 A, p. 17. ("Serpent.")
 Stannius, H. 1856 A.
 Steinmann and Döderlein 1890 A, p. 646.
 Tomes, C. S. 1896 A, p. 278.
 Walter, F. 1887 A.
 Zittel, K. A. 1890 A, pp. 450, 624.

PALÆOPHIDÆ.

- Lydekker, R. 1888 C, p. 113.
 1888 B, p. 256.

- Nicholson and Lydekker 1889 A, p. 1147.

PALÆOPHIS OWEN. Type *P. toliapicus* Owen.

- Owen, E. 1840 G, p. 165.
 Cope, E. D. 1868 K, p. 234.
 1869 M, pp. 227, 299.
 Lydekker, R. 1888 C, p. 112.
 1888 B, p. 256.
 Marsh, O. C. 1869 C, p. 400. (*Dinophis*, type *Palæophis littoralis* Cope.)
 1871 A, p. 323. (*Dinophis*.)
 1877 E, p. 223. (*Titanophis*, to replace *Dinophis*, preoccupied.)
 Nicholson and Lydekker 1889 A, p. 1148.
 Owen, R. 1841 B, p. 209.
 1842 A, p. 150.
 1850 A, p. 56.
 Pictet, F. J. 1853 A, p. 556.
 Rochebrune, A. T. 1880 A, p. 274.
 Zittel, K. A. 1890 A, p. 628. (*Palæophis*, *Titanophis*.)
Palæophis grandis (Marsh).
 Marsh, O. C. 1869 C. (*Dinophis*.)
 Cope, E. D. 1869 M, p. 228.

Cope, E. D. 1872 Y, p. 14.
 Eocene; New Jersey.

Palæophis halidanus Cope.

- Cope, E. D. 1868 K, p. 234.
 1869 B, p. 738.
 1869 M, p. 227, pl. v, fig. 2.
 1872 Y, p. 14.
 1882 J, p. 981, fig. 2.
 Marsh, O. C. 1869 C, p. 400. (*Dinophis*.)
 Eocene; New Jersey.

Palæophis littoralis Cope.

- Cope, E. D. 1868 F.
 1868 K, p. 234.
 1869 B, p. 737.
 1869 M, p. 227, pl. v, fig. 1.
 1872 Y, p. 14.
 1882 J, p. 981, fig. 1.
 Marsh, O. C. 1869 C, p. 400. (*Dinophis*.)
 Eocene; New Jersey.

PTEROSPHEENUS LUCAS. Type *P. schucherti* Lucas.

- Lucas, F. A. 1896 B.
Pterosphenus schucherti Lucas.
 Lucas, F. A. 1896 B, p. 637, pls. xlv, xlv.

Schuchert, C. 1900 A, p. 328.
 Eocene (Jackson); Alabama.

BOIDÆ.

- Gray, J. E. 1842 Zool. Miscell., p. 41. (In part.)
 Boulenger, G. A. 1893 A, p. 71.
 Cope, E. D. 1864 A, p. 230. (*Pythonidæ*, *Boidæ*.)
 1886 V, pp. 479, 484.
 1900 A, p. 721.
 Gadow, H. 1896 A, p. 28.
 Hoffmann, C. K. 1890 C, p. 1753. (*Boaidæ*.)

Rochebrune, A. T. 1881 A, p. 201. ("Aprotérodontiens.")
 Segond, L. A. 1873 A, p. 17. ("Python.")
 Stannius, H. 1856 A. (*Peropoda*.)
 Tomes, C. S. 1898 A, p. 373. ("Pythons.")
 Zittel, K. A. 1890 A, p. 629. (*Boaidæ*.)

BOAVUS MARSH. Type *B. occidentalis* Marsh.

- Marsh, O. C. 1871 A, p. 322.
 Cope, E. D. 1884 O, p. 108.
 Nicholson and Lydekker 1889 A, p. 1147.
 Zittel, K. A. 1890 A, p. 629.

Boavus agilis Marsh.

- Marsh, O. C. 1871 A, p. 324.
 King, C. 1878 A, p. 406.
 Eocene (Bridger); Wyoming.

Boavus brevis Marsh.

- Marsh, O. C. 1871 A, p. 324.
 King, C. 1878 A, p. 406.
 Eocene (Bridger); Wyoming.

Boavus occidentalis Marsh.

- Marsh, O. C. 1871 A, p. 323.
 King, C. 1878 A, p. 406.
 Eocene (Bridger); Wyoming.

PROTAGRAS COPE. Type *P. lacustris* Cope.

- Cope, E. D. 1872 E, p. 471.
 1884 O, p. 102.
 Nicholson and Lydekker 1889 A, p. 1147.
 Zittel, K. A. 1890 A, p. 629. (Syn. ? of *Boavus* Marsh.)

Protagras lacustris Cope.

- Cope, E. D. 1872 E, p. 471.
 1873 E, p. 632.
 1884 O, p. 103, pl. xxiii, figs. 17, 18.
 Eocene (Bridger); Wyoming.

LITHOPHIS MARSH. Type *L. sargenti* Marsh.

- Marsh, O. C. 1871 A, p. 325.
 Nicholson and Lydekker 1889 A, p. 1147.

Lithophis sargenti Marsh.

- Marsh, O. C. 1871 A, p. 325.
 King, C. 1878 A, p. 406.
 Eocene (Bridger); Wyoming.

LESTOPHIS Marsh. Type *L. crassus* Marsh.

Marsh, O. C. 1885 A, p. 326. (To replace *Limnophis*, preoccupied.)
 1871 A, p. 326. (*Limnophis*.)
 Nicholson and Lydekker 1889 A, p. 1147.

***Lestophis crassus* Marsh.**

Marsh, O. C. 1871 A, p. 328. (*Limnophis*)
 King, C. 1878 A, p. 406. (*Limnophis*)
 Marsh, O. C. 1885 A.
 Eocene (Bridger); Wyoming.

APHELOPHIS Cope. Type *A. talpivorus* Cope.

Cope, E. D. 1873 CC, p. 16.
 1874 B, p. 518.
 1884 O, p. 781.
 Nicholson and Lydekker 1889 A, p. 1147.
 Zittel, K. A. 1890 A, p. 630.

***Aphelophis talpivorus* Cope.**

Cope, E. D. 1873 CC, p. 16.
 1874 B, p. 518.
 1884 O, p. 782, pl. 1x, fig. 21.
 Oligocene (White River); Colorado.

CALAMAGRAS Cope. Type *C. murivorus* Cope.

Cope, E. D. 1873 CC, p. 15.
 1874 B, p. 517.
 1884 O, p. 784.
 Nicholson and Lydekker 1889 A, p. 1147.
 Zittel, K. A. 1890 A, p. 630.

***Calamagras murivorus* Cope.**

Cope, E. D. 1873 CC, p. 15. (*C. murivorus*, *C. truxalis*.)
 1874 B, p. 517. (*C. murivorus*, *C. truxalis*.)
 1884 O, p. 784.
 Oligocene (White River); Colorado.

OGMOPHIS Cope. Type *O. angulatus* Cope.

Cope, E. D. 1884 O, p. 782.
 Nicholson and Lydekker 1889 A, p. 1147.
 Zittel, K. A. 1890 A, p. 630.

***Ogmophis angulatus* Cope.**

Cope, E. D. 1873 CC, p. 16. (*Calamagras*.)
 1874 B, p. 518. (*Calamagras*.)

Cope, E. D. 1884 O, p. 783, pl. 1viii, fig. 12.
 Oligocene (White River); Colorado.

***Ogmophis oregonensis* Cope.**

Cope, E. D. 1884 O, p. 783, pl. 1viii, figs. 9-11.
 Miocene (John Day); Oregon.

COLUBRIDÆ.

Gray, J. E. 1849, Cat. Snakes, p. 2.
 Boulenger, G. A. 1898 A.
 1894 A.
 1896 C.

Cope, E. D. 1886 V, p. 484.
 1900 A, p. 732.
 Gadow, H. 1898 A, p. 28.
 Hoffmann, C. K. 1890 C, p. 1688.
 Stannius, H. 1856 A. (*Colubrina*.)

COLUBER Linn.

Linnaeus, C. 1758, Syst. Nat., ed. x, p. 216.
 Boulenger, G. A. 1894 A, p. 24.
 Cope, E. D. 1900 A, p. 825.

***Coluber* sp. indet.**

Wheatley, C. M. 1871 A.
 Pleistocene; Pennsylvania.

BASCANION Baird and Girard. Type *Coluber constrictor* Linn.

Baird and Girard, 1853, Cat. N. Amer. Rept., p. 93.
 Boulenger, G. A. 1893 A, p. 379. (*Zamenis*, in part.)
 Cope, E. D. 1900 A, p. 787. (*Zamenis*, in part.)

***Bascanion acuminatus* (Cope).**

Cope, E. D. 1899 A, p. 197. (*Zamenis*.)
 Pleistocene; Pennsylvania.

CROTALIDÆ.

Boulenger, G. A. 1896 C, p. 519. (*Crotalinae*.)
 Cope, E. D. 1886 V, pp. 480-498.
 1892 O.
 1900 A, p. 1130.
 Giebel, C. G. 1866 B.

Hoffmann, C. K. 1890 C, p. 1798.
 Rochebrune, A. T. 1881 A, p. 216. ("Crotallens")
 Stannius, H. 1856 A. (*Crotalina*.)
 Troeschel, F. H. 1861 A. (*Crotalina*.)

CROTALUS Linn. Type *C. horridus* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. x, p. 214.
Boulenger, G. A. 1896 C, p. 572.
Cope, E. D. 1900 A, p. 1149.

Crotalus horridus Linn.

Linnaeus, C., 1758, Syst. Nat., ed. x, p. 214.

Cope, E. D. 1900 A, p. 1185.

Green, J. 1821 A.

Wheatley, C. M. 1871 A.

Pleistocene; Pennsylvania, New Jersey.

NEURODROMICUS Cope. Type *N. dorsalis* Cope.

Cope, E. D. 1873 CC, p. 15.

1874 B, p. 516.

1884 O, p. 785.

Hoffmann, C. K. 1890 C, p. 1814. (*Neurodromus*.)

Nicholson and Lydekker 1889 A, p. 1148.

Zittel, K. A. 1890 A, p. 681.

Neurodromicus dorsalis Cope.

Cope, E. D. 1873 CC, p. 15.

1874 B, p. 517.

1884 O, p. 786, pl. lviii, figs. 7, 8.

Oligocene (White River); Colorado.

HELAGRAS Cope. Type *H. prisciformis* Cope.

Cope, E. D. 1883 M, p. 545.

1883 W.

1884 O, p. 730.

Nicholson and Lydekker 1889 A, p. 1146.

Zittel, K. A. 1890 A, p. 682.

A genus of uncertain position.

Helagras prisciformis Cope.

Cope, E. D. 1883 M, p. 545.

1883 W.

1884 O, p. 731, pl. xxiivg, fig. 2.

1888 CC, p. 302.

Zittel, K. A. 1890 A, p. 682.

Eocene (Puerco); New Mexico.

CONIOPHIS Marsh. Type *C. precedens* Marsh.

Marsh, O. C. 1892 E, p. 450.

A genus of uncertain affinities.

Coniophis precedens Marsh.

Marsh, O. C. 1892 E, p. 450, figs. 1a-e.

Walcott, C. D. 1900 A, p. 23.

Cretaceous (Laramie); Wyoming.

Order DINOSAURIA Owen.

Owen, R. 1842 A, p. 102.

Baur, G. 1888 A.

1884 A.

1884 B.

1884 E.

1885 C.

1885 E.

1887 A, p. 487.

1887 C, p. 101.

1887 S, p. 353.

1891 C, p. 354.

1891 D.

Burckhardt, R. 1895 A.

Cannon, G. L. 1888 A, pp. 140, 190.

Cope, E. D. 1869 M, pp. 33, 86.

1871 B, p. 234.

1872 Q.

1877 G, p. 568.

1878 K.

1879 A, p. 38.

1882 J, p. 981.

1882 Q.

1883 J, p. 97.

1883 DD.

1885 G, p. 246.

1886 E.

1889 R, p. 864.

Cope, E. D. 1891 N, p. 41.

1892 R.

1892 Z, p. 17.

1898 B, pp. 56, 68.

1900 A, p. 160.

Dames, W. 1884 A.

Dawkins, W. B. 1871 A.

Dollo, L. 1882 B.

1883 B.

1883 C.

1884 B.

1888 E.

Fürbringer, M. 1888 A.

1900 A, pp. 347, 535, 651.

Gadow, H. 1897 A, p. 204.

1898 A, p. 22.

Gegenbaur, C. 1896 A.

Günther, A. 1866 A, p. 442.

Haeckel, E. 1896 A, p. 374.

Hay, O. P. 1899 F, p. 682.

Hoffmann, C. K. 1890 B.

Hulke, J. W. 1888 A.

1883 B.

1884 A.

Huxley, T. H. 1868 A, p. 362.

1870 A, p. 438.

1870 C.

Huxley, T. H. 1870 D.
 1872 A, p. 223. (Ornithoscelida.)
 1875 B.
 1876 B, xiii, p. 515.
 Kehner, F. A. 1876 A.
 Lydekker, R. 1888 A.
 1888 B, p. 131.
 1893 E, p. 139.
 Marsh, O. C. 1877 E.
 1878 F.
 1879 B.
 1880 D.
 1881 E.
 1881 H.
 1882 A.
 1884 A.
 1884 B.
 1884 G.
 1885 D.
 1889 B.
 1896 B.
 1896 C.
 1896 A.
 1896 C.
 1896 D.

Morse, E. S. 1880 A, p. 3.
 Nicholson and Lydekker 1889 A, p. 1151.
 Osborn, H. F. 1899 H, p. 161.
 1900 G, p. 777.
 Owen, R. 1854 B, p. 1.
 1860 A, p. 164.
 1860 E, p. 257.
 1866 A, p. 18.
 1875 C.
 Parker, W. K. 1887 A, p. 331.
 Pictet, F. J. 1853 A, p. 466. ("Dinosauriena")
 Quenstedt, F. A. 1852 A, p. 111.
 Seeley, H. G. 1879 A.
 1887 B.
 1888 B.
 1888 C.
 1888 G.
 Steinmann and Döderlein 1890 A, p. 658.
 Tomes, C. S. 1896 A, p. 287.
 Vetter, B. 1885 A.
 White, C. A. 1883 A.
 Wiedersheim, R. 1881 A, p. 366.
 Woodward, A. S. 1896 B, p. 196.
 Zittel, K. A. 1890 A, pp. 450, 689, 767.

SUBORDER OPISTHOCCELIA Owen.

Owen, R. 1860 A, p. 164.
 Unless otherwise indicated, the following authors employ the term *Sauropoda* for this group.
 Baur, G. 1883 A.
 1884 A.
 1887 C, p. 101. (Opisthocoelia.)
 1891 D, p. 451. (Cetiosauria.)
 Cope, E. D. 1882 Q. (Sauropoda a synonym of Opisthocoelia.)
 1883 J, p. 98. (Opisthocoelia.)
 1889 E.
 1889 R, p. 864. (< Saurischia.)
 1891 N, p. 43. (< Saurischia.)
 1898 B, p. 68. (< Saurischia.)
 Dollo, L. 1884 B.
 1892 C, p. 10.
 Fürbringer, M. 1900 A.
 Gadow, H. 1897 A, p. 204.
 1898 A, p. 22.
 Haeckel, E., 1895 A, pp. 382, 386.
 Hulke, J. W. 1879 A.
 1880 A.
 1882 A.
 Huxley, T. H. 1867 A, p. 415.
 1869 B.
 Lydekker, R. 1886 C, p. 275.
 1888 A, p. 53.

Lydekker, R. 1888 B, p. 131.
 Marsh, O. C. 1878 F, p. 412.
 1879 B.
 1881 E.
 1882 A, p. 83.
 1883 A, pp. 82, 85.
 1884 A.
 1884 G.
 1886 D.
 1889 B, p. 324.
 1896 C, pp. 164, 241.
 1896 D, p. 207.
 1896 C.
 Nicholson and Lydekker 1889 A, p. 1170.
 Osborn, H. F. 1898 J, p. 221. (Cetiosauria.)
 1900 G, p. 786. (Cetiosauria.)
 Owen, R. 1875 C, p. 27. (Cetiosaurus.)
 Science 1885 B.
 Seeley, H. G. 1888 B. (< Saurischia.)
 1888 C, p. 86. (Cetiosauria.)
 1888 G, p. 171. (< Saurischia.)
 1892 A, p. 349. (< Saurischia.)
 Steinmann and Döderlein 1890 A, p. 661.
 Vetter, B. 1885 A, p. 117.
 Woodward, A. S. 1896 B, p. 200.
 Zittel, K. A. 1890 A, pp. 693, 702.

MOROSAURIDÆ.

Marsh, O. C. 1882 A, p. 83.
 Baur, G. 1895 A, p. 1001.
 1896 A, p. 145.
 Lydekker, R. 1888 B, p. 133. (Cetiosauridæ.)
 1889 C, p. 59. (Cetiosaurus.)
 1889 J. (On Cardiodon).
 1890 A, p. 236. (< Cetiosauridæ.)
 Marsh, O. C. 1883 A, p. 85.
 1884 A.

Marsh, O. C. 1884 G.
 1885 D.
 1888 A, p. 92. (Pleurocoelidæ.)
 1889 B, p. 324. (Morosauridæ, Cetiosauridæ, Pleurocoelidæ.)
 1896 C, p. 495 (Morosauridæ); p. 496 (Pleurocoelidæ).
 1896 C, p. 241 (Morosauridæ); p. 242 (Pleurocoelidæ, Cardiodontidæ).

Marsh, O. C. 1896 D, p. 208. (Morosauridae, Pleurocoelidae.)
 1896 F, p. 435.
 1897 C, p. 496.
 1898 C, p. 488. (Morosauridae, Pleurocoelidae.)
 Nicholson and Lydekker 1889 A, p. 1177. (<Cetiosauridae.)

Owen, R. 1841 E, p. 457. (Cetiosaurus.)
 1859 D, p. 27. (Cetiosaurus.)
 Pictet, F. J. 1853 A, p. 493. (Cetiosaurus.)
 Steinmann and Döderlein 1890 A, p. 663.
 Williston, S. W. 1896 A, p. 169.
 Williston and Case 1892 A, p. 16.
 Zittel, K. A. 1890 A, p. 709.

MOROSAURUS Marsh. Type *M. impar* Marsh.

Marsh, O. C. 1878 B, p. 242.
 Baur, G. 1883 A, p. 433.
 Giebel, C. G. 1879 A, p. 317.
 Hulke, J. W. 1888 A, p. 425.
 Krause, W. 1881 A.
 Lydekker, R. 1888 A, p. 59.
 1888 B, p. 134.
 1889 C, p. 59.
 1890 A, p. 236.
 Marsh, O. C. 1878 F, p. 412.
 1879 B.
 1883 A, p. 82.
 1884 A.
 1888 A, p. 90.
 1896 C, p. 496.
 1896 C, p. 181.
 1897 C, p. 496.

Nicholson and Lydekker 1889 A, pp. 1177, 1179.

Osborn, H. F. 1896 J, p. 221.

1899 H, p. 168.

1900 G, p. 787.

Steinmann and Döderlein 1890 A, p. 663.

Wiedersheim, R. 1881 A.

Williston, S. W. 1896 A, p. 165.

1898 F.

Zittel, K. A. 1890 A, p. 709.

Morosaurus agilis Marsh.

Marsh, O. C. 1889 C, p. 334, fig. 3.

1896 C, pl. xxx, fig. 1; pl. xxxvii, figs. 1, 2.

Osborn, H. F. 1899 H, p. 170, fig. 6.

Jurassic; Colorado.

Morosaurus grandis Marsh.

Marsh, O. C. 1877 G, p. 515. (Apatosaurus.)

King, C. 1878 A, p. 346. (Apatosaurus.)

Lydekker, R. 1888 B, p. 133, figs. 20, 21.

Marsh, O. C. 1878 F, p. 514, pls. v-vii.

1879 B, pls. iii, v, vii.

1880 C, p. 254.

1883 A, pp. 83, 85.

1896 C, p. 181, pl. xxx, figs. 2, 3; pl. xxxi, pl. xxxii, figs. 4-6; pl. xxxiv, figs. 1, 5-7, pl. xxxv, fig. 3; pl. xxxviii: pl. xxxix, figs. 4, 5; text figs. 31-33.

1897 C, p. 497, figs. 49-51.

Williston, S. W. 1898 F, figs. 1, 2.

Zittel, K. A. 1890 A, p. 709, figs. 614-617.

Jurassic; Wyoming?, Colorado.

Morosaurus impar Marsh.

Marsh, O. C. 1878 B, p. 242.

King, C. 1878 A, p. 346.

Jurassic; "Rocky Mountain region."

Morosaurus lentus Marsh.

Marsh, O. C. 1889 C, p. 333, fig. 2.

1896 C, p. 488, fig. 8.

1896 C, p. 182, pl. xxxii, figs. 1, 2; pl. xxxiii; pl. xxxiv, figs. 3, 4; pl. xxxv, fig. 4; pl. xxxvi, fig. 1; pl. xxxvii, figs. 3-5; text figs. 34, 68.

1896 D, p. 20, fig. 8.

Jurassic; Wyoming.

Morosaurus robustus Marsh.

Marsh, O. C. 1878 F, p. 414, pl. viii.

1879 H, p. 503.

1896 C, pl. xxxv, figs. 1, 2.

Jurassic; Wyoming.

PLEUROCELUS Marsh. Type *P. nanus* Marsh.

Marsh, O. C. 1888 A, p. 90.

Lydekker, R. 1888 B, p. 134.

1890 A, p. 237.

1890 B, p. 182, pl. ix.

Marsh, O. C. 1896 C, p. 490.

1896 C, p. 183.

1897 E, p. 415.

1898 C, p. 488.

Nicholson and Lydekker 1889 A, p. 1179.

Zittel, K. A. 1890 A, p. 714.

Pleurocelus altus Marsh.

Marsh, O. C. 1888 A, p. 92.

Jurassic (Potomac); Maryland.

Pleurocelus montanus Marsh.

Marsh, O. C. 1896 C, p. 184, figs. 35-41.

Walcott, C. D. 1900 A, p. 23.

Formation and locality not given.

Pleurocelus nanus Marsh.

Marsh, O. C. 1888 A, p. 90, figs. 1-6.

Lydekker, R. 1890 A, p. 238, fig. 62.

Marsh, O. C. 1896 C, pls. xi, xli.

Jurassic (Potomac); Maryland.

EPANTERIAS Cope. Type *E. amplexus* Cope.

Cope, E. D. 1878 V, p. 406.

Zittel, K. A. 1890 A, p. 709.

Epanterias amplexus Cope.

Cope, E. D. 1878 V, p. 406.

Jurassic; Colorado.

CAULODON Cope. Type *C. diversidens* Cope.

Cope, E. D. 1877 F, p. 193.

Nicholson and Lydekker, 1889 A, p. 1176.

Zittel, K. A. 1890 A, p. 711.

The position of this genus is doubtful.

Caulodon diversidens Cope.

Cope, E. D. 1877 F, p. 193.

1878 I, p. 247.

Osborn, H. F. 1898 J, p. 227.

Jurassic; Colorado.

Caulodon leptoganus Cope.

Cope, E. D. 1878 I, p. 247.

Jurassic; Colorado.

SYMPHYROPHUS Cope. Type *S. musculosus* Cope.

Cope, E. D. 1878 I, p. 246.

1878 H, p. 391.

1878 M, p. 84.

Zittel, K. A. 1890 A, p. 726.

A genus of doubtful position.

Symphyrophus musculosus Cope.

Cope, E. D. 1878 I, p. 246.

1878 H, p. 391.

Osborn, H. F. 1898 J, p. 227.

Jurassic; Colorado.

ASTRODON Johnston. Type *A. johnstoni* Leidy.

Johnston, C., in Leidy, J. 1865 A, p. 102.

1859 A, p. 341. (Name; no description.)

Marsh, O. C. 1896 C, p. 242.

1898 C, p. 488.

Zittel, K. A. 1890 A, p. 717.

A genus of uncertain affinities.

Astrodon johnstoni Leidy.

Leidy, J. 1865 A, pp. 102, 119, pl. xiii, figs. 20-23; pl. xx, fig. 10.

Bibbins, A. 1895 A, p. 19, fig. H. (This species?)

Cope, E. D. 1869 M, p. 99.

Marsh, O. C. 1896 C, p. 164, text fig. 6.

Jurassic (Potomac); Maryland.

ATLANTOSAURIDÆ.

Marsh, O. C. 1877 G, p. 514.

Cope, E. D. 1877 R, p. 3. (Camarasauridæ, Amphicoelidæ.)

1878 I, p. 243. (Camarasauridæ, Amphicoelidæ.)

1883 J, p. 99. (Camarasauridæ.)

1898 B, p. 68. (Cetiosauridæ.)

Günther, A. 1886 A, p. 443.

Lydekker, R. 1888 B, p. 143.

Marsh, O. C. 1878 B, p. 240.

1882 A, p. 83.

1883 A, pp. 82, 85.

Marsh, O. C. 1884 A, p. 167.

1885 D.

1889 B.

1893 B.

1895 C, p. 495.

1896 C, pp. 166, 241.

1896 D, p. 208.

1897 C, p. 494.

1898 C, p. 487.

Nicholson and Lydekker 1889 A, p. 1173.

Steinmann and Döderlein 1890 A, p. 662.

Zittel, K. A. 1890 A, p. 705.

ATLANTOSAURUS Marsh. Type *Titanosaurus montanus* Marsh.Marsh, O. C. 1877 G, p. 514. (To replace *Titanosaurus* Marsh, preoccupied.)

Cope, E. D. 1878 I, p. 237.

Glebel, C. G. 1879 A, p. 318.

Hulke, J. W. 1879 A.

Lydekker, R. 1888 B, p. 144.

Marsh, O. C. 1877 C. (*Titanosaurus*, type *T. montanus*.)

1877 E.

1878 G, p. 224.

1879 B, p. 83, pls. vi, vii.

1895 C, p. 495.

1896 C, p. 166.

1897 C, p. 485.

Nicholson and Lydekker 1889 A, p. 1173.

Osborn, H. F. 1898 J, p. 219 et seq.

Steinmann and Döderlein 1890 A, p. 662.

Zittel, K. A. 1890 A, p. 705.

Atlantosaurus immanis Marsh.

Marsh, O. C. 1878 B, p. 241.

Barbour, E. H. 1890 B, p. 392, figs. 3, 4.

King, C. 1878 A, p. 346.

Lydekker, R. 1888 B, p. 145.

Marsh, O. C. 1879 B, p. 89, pl. vii.

1896 C, p. 166, pl. xvi.

1897 C, pp. 488, 526, figs. 34-35a.

Nicholson and Lydekker 1889 A, p. 1174.

Jurassic; Wyoming, Colorado.

Atlantosaurus montanus Marsh.Marsh, O. C. 1877 C. (*Titanosaurus*.)

Cope, E. D. 1877 Q, p. 6. (No name.)

1878 I, p. 237. (*Titanosaurus*.)

King, C. 1878 A, p. 346.

Marsh, O. C. 1877 E.

1879 B, p. 83, pl. vi.

1896 C, p. 166, pl. xv; pl. xvii, fig. 1.

1897 C, p. 487, fig. 33.

Osborn, H. F. 1898 J, p. 228, fig. 7 B.

Williston, S. W. 1878 A, p. 43. (*Titanosaurus*.)

Jurassic; Colorado.

APATOSAURUS Marsh. Type A. *ajax* Marsh.

- Marsh, O. C.* 1877 G, p. 514.
Giebel, C. G. 1879 A, p. 317.
Marsh, O. C. 1879 B, p. 86.
 1883 A, p. 82.
 1896 C, p. 495.
 1896 C, p. 166.
 1897 C, p. 499.
Nicholson and Lydekker 1889 A, p. 1173.
Osborn, H. F. 1898 J, p. 219 *et seq.*
Zittel K. A. 1890 A, p. 706.

***Apatosaurus ajax* Marsh.**

- Marsh, O. C.* 1877 G, p. 514.
King, C. 1878 A, p. 346.

- Marsh, O. C.* 1879 B, p. 87, pl. iv; pl. vi, fig. 1.
 1896 C, p. 168, pl. xviii, figs. 2, 3; text figs. 7, 8.
 1897 C, pp. 490, 526, figs. 37, 38.
Osborn, H. F. 1898 J, p. 228, figs. 7 B, 9.
 Jurassic; Colorado.

***Apatosaurus laticollis* Marsh.**

- Marsh, O. C.* 1879 B, p. 88, pl. iii, figs. 1, 2.
Barbour, E. H. 1890 B, p. 390, figs. 1, 2.
Marsh, O. C. 1896 C, pl. xviii, fig. 1; pl. xix, fig. 1.
 1897 C, pp. 490, 526, fig. 36.
Zittel, K. A. 1890 A, p. 706, fig. 609.
 Jurassic; Colorado.

BAROSAURUS Marsh. Type B. *lentus* Marsh.

- Marsh, O. C.* 1890 A, p. 85, pl. i, figs. 1, 2.
 1896 C, p. 495.
 1896 C, p. 174.
 1898 C, p. 488.
Zittel, K. A. 1890 A, p. 716.

***Barosaurus affinis* Marsh.**

- Marsh, O. C.* 1899 A, p. 228. (No description.)
 Jurassic; Wyoming.

***Barosaurus lentus* Marsh.**

- Marsh, O. C.* 1890 A, p. 85, text figs. 1, 2.
 1896 C, p. 174, text figs. 24-26.
 1899 A, p. 228.
 Jurassic; South Dakota.

BRONTOSAURUS Marsh. Type B. *excelsus* Marsh.

- Marsh, O. C.* 1879 H, p. 503.
Fürbringer, M. 1900 A, p. 362.
Hulke, J. W. 1883 A, p. 62.
 1888 A, p. 425.
Lydekker, R. 1888 A, p. 55.
 1893 E, p. 139.
Marsh, O. C. 1880 D, p. 395.
 1881 E, p. 417, pls. xii-xviii.
 1883 A.
 1891 C, p. 341, pl. xvi.
 1896 C, p. 496.
 1896 C, p. 168.
 1897 C, p. 492.
Nicholson and Lydekker 1889 A, p. 1173.
Osborn, H. F. 1898 J, p. 219 *et seq.*
 1899 E, pp. 205, 207, 218.
 1899 H, p. 162, fig. 1 B, p. 171, fig. 7.
 1900 G, p. 788.
Steinmann and Döderlein 1890 A, p. 662.
Woodward, A. S. 1898 B, p. 201.
Zittel, K. A. 1890 A, p. 706.

***Brontosaurus amplius* Marsh.**

- Marsh, O. C.* 1881 E, p. 421.

- Marsh, O. C.* 1896 C, p. 173, text figs. 17, 20, 29.
 Jurassic; Wyoming.

***Brontosaurus excelsus* Marsh.**

- Marsh, O. C.* 1879 H, p. 503.
Fürbringer, M. 1900 A, p. 353, fig. 124.
Geinitz and Deichmüller 1882 A.
Hutchinson, H. N. 1893 A, p. 66, pl. iv.
Lydekker, R. 1888 B, p. 144, fig. 23.
 1893 B, p. 302, fig. 1.
Marsh, O. C. 1880 D, p. 395, pl. xviii.
 1881 E, p. 417, pls. xii-xviii.
 1883 A, pl. i.
 1891 C, p. 341, pl. xvi.
 1893 I, p. 437.
 1896 C, pl. x, fig. 2.
 1896 C, p. 169, pls. xx-xxiv; pl. xlii; text figs. 9-16, 21-23.
 1896 D, pl. i, fig. 2.
 1897 C, p. 492, pl. xxi, text figs. 39-43.
Osborn, H. F. 1898 J, 223 *et seq.*, figs. 6, 7 C, 8, 12.
Woodward, A. S. 1898 B, p. 201, figs. 121, 122.
Zittel, K. A. 1890 A, p. 707, figs. 610-613.
 Jurassic; Wyoming, Colorado.

CAMARASAURUS Cope. Type C. *supremus* Cope.

- Cope, E. D.* 1877 A.
 1877 W.
 1878 E.
 1878 I, pp. 233, 234.
 1878 M.
 1878 V.
 1879 A, p. 35.
Hulke, J. W. 1879 A.
 1880 A.

- Hulke, J. W.* 1882 A.
Lydekker, R. 1888 A, p. 54.
Marsh, O. C. 1896 C, p. 496.
 1898 C, p. 488.
Osborn, H. F. 1898 J, p. 219.
 1900 G, pp. 786, 788.
Owen, R. 1878 D.
Zittel, K. A. 1890 A, p. 711. (Camarosaurus.)

Camarasaurus leptodirus Cope.

Cope, E. D. 1879 R, p. 403, figs. 1-3.
Jurassic; Colorado.

Camarasaurus supremus Cope.

Cope, E. D. 1877 Q.
1877 W.
1878 E.

Cope, E. D. 1878 I, p. 237, figs. 1-12.
1878 M, figs. 1-12.
1891 N, p. 43, fig. 21.
1898 B, p. 68, fig. 22, A. B.

Marsh, O. C. 1879 B, p. 89.

Osborn, H. F. 1898 J, p. 227 *et seq.*, figs. 10, 11.

Williston, S. W. 1878 A, p. 43.

Zittel, K. A. 1890 A, p. 712, fig. 618.
Jurassic; Colorado.

AMPHICELIAS Cope. Type *A. altus* Cope.

Cope, E. D. 1877 R.
1878 I, p. 242.
1878 M.

Lydekker, R. 1888 A, p. 54.

Marsh, O. C. 1881 E, p. 419. (Syn. of *Brontosaurus*.)

1896 C, p. 241. (Syn. of *Camarasaurus*.)
1898 C, p. 488.

Osborn, H. F. 1898 J, p. 219 *et seq.*

Zittel, K. A. 1890 A, p. 709.

Amphicelias altus Cope.

Cope, E. D. 1877 R, p. 3.
1878 I, p. 243, figs. 13-15.
1878 M, figs. 13-17.
1879 X, p. 798 a.

Cope, E. D. 1898 B, p. 69, fig. 22, C.
Jurassic; Colorado.

Amphicelias fragillimus Cope.

Cope, E. D. 1878 Y, figure.

1881 BB, p. 413. (*A. fragillissimus*; syn. ? of
Cœlurus fragilis.)

1884 W. (*A. fragillissimus*.)

1898 B, p. 68. (*A. fragillissimus*.)

Jurassic; Colorado.

Amphicelias latus Cope.

Cope, E. D. 1873 R, p. 4.
1878 I, p. 245, figs. 17, 18.
Jurassic; Colorado.

DIPLODOCIDÆ.

Marsh, O. C. 1884 A.
1884 G.
1885 D.
1889 B, p. 324.
1896 C, p. 496.

Marsh, O. C. 1896 C, p. 241.
1896 D, p. 206.
1898 C, p. 488.

Nicholson and Lydekker 1889 A, p. 1176.

Zittel, K. A. 1890 A, p. 714.

DIPLODOCUS Marsh. Type *D. longus* Marsh.

Marsh, O. C. 1878 F, p. 414.
Baur, G. 1891 D, p. 445.
Cope, E. D. 1884 W.
Dollo, L. 1884 B.
Giebel, C. G. 1879 A, p. 317.
Hatcher, J. B. 1900 A, p. 718.
1900 B, p. 828.
Holland, W. J. 1900 A, p. 816.
Lydekker, R. 1888 A, p. 53.
Marsh, O. C. 1880 C, p. 255, pl. vi, figs. 4, 5.
(*Stegosaurus armatus, errore.*)
1883 A, p. 85.
1884 A.
1896 C, p. 495.
1896 C, p. 175.
1897 C, p. 494.
Nicholson and Lydekker 1889 A, p. 1176.
Osborn, H. F. 1898 J, p. 221.
1899 C, p. 315.
1899 E.
1899 H, p. 165, fig. 1 A.
1900 G, pp. 787, 790, fig. 8.
Steinmann and Döderlein 1890 A, p. 662.

Woodward, A. S. 1898 B, p. 204.
Zittel, K. A. 1890 A, p. 714

Diplodocus lacustris Marsh.

Marsh, O. C. 1884 A, p. 164.
Jurassic; Colorado.

Diplodocus longus Marsh.

Marsh, O. C. 1878 F, p. 414, pl. viii, figs. 3, 4.
Cope, E. D. 1884 W.
Hatcher, J. B. 1900 B, p. 828. ("Diplodocus.")
Holland, W. J. 1900 A, p. 816. ("Diplodocus.")
Lydekker, R. 1888 B, p. 132, fig. 19.
Marsh, O. C. 1884 A, p. 168, pls. iii, iv.
1896 C, p. 175, pls. xxv-xxix, fig. 1; pl.
xxxix, fig. 5, text figs. 27-29.
1897 C, p. 495, figs. 44-48.
Osborn, H. F. 1899 E, p. 191, pls. xxiv-xxviii, text
figs. 1-8, 11-14.
Walcott, C. D. 1900 A, p. 23.
Woodward, A. S. 1898 B, p. 204, fig. 124.
Zittel, K. A. 1890 A, p. 715, figs. 620-622.
Jurassic; Wyoming, Colorado.

Suborder THEROPODA Marsh.

- Mora, O. C. 1881 E, p. 423.
 Baur, G. 1883 A, p. 441. (Theropoda.)
 1887 C, p. 101. (Goniopoda.)
 1891 D, p. 451. (Megalosauria.)
 Cope, E. D. 1868 E, p. 317. (Goniopoda.)
 1867 D. (>Theropoda.)
 1869 M, p. 99 (Goniopoda); p. 120 (Symphy-
 poda).
 1871 B, p. 234. (Goniopoda, Symphypoda.)
 1882 Q. (Goniopoda.)
 1883 J, p. 98. (Goniopoda.)
 1889 R, p. 864. (<Saurischia.)
 1891 N, p. 43. (<Saurischia.)
 1896 B, p. 68. (<Saurischia.)
 Dollo, L. 1892 C, p. 12. ("Theropoda.")
 Fitzinger, L., 1843, Syst. Rept., p. 85. (Fam. Meg-
 alosauri.)
 Fürbringer, M. 1888 A.
 1900 A.
 Gadow, H., 1897 A, p. 204.
 1896 A, p. 22.

- Günther, A. 1866 A, p. 443.
 Haeckel, E. 1895 A, p. 384.
 Huxley, T. H. 1870 D, p. 35.
 Lydekker, R. 1888 A, p. 59.
 1888 B, p. 154.
 Marsh, O. C. 1882 A, p. 84.
 1884 B.
 1884 G.
 1885 D, p. 764.
 1889 B, p. 329.
 1896 C, p. 492.
 1896 C, pp. 146, 239.
 1896 D, p. 205.
 Nicholson and Lydekker 1889 A, p. 1164.
 Seeley, H. G. 1888 B. (<Saurischia.)
 1892 A, p. 349. (<Saurischia.)
 Steinmann and Döderlein 1890 A, p. 669.
 Vetter, B. 1885 A, p. 117.
 Woodward, A. S. 1896 B, p. 197.
 Zittel, K. A. 1890 A, pp. 450, 693, 717.

MEGALOSAURIDÆ.

- Huxley, T. H. 1870 D, p. 34.
 Baur, G. 1883 A, p. 440.
 Cope, E. D. 1868 C, p. 417. (Dinodontidæ.)
 1869 M, p. 117. (Dinodontidæ.)
 1889 R, p. 864.
 1896 B, p. 68.
 Dawkins, W. B. 1871 A.
 Lydekker, R. 1888 B, p. 157.
 Marsh, O. C. 1879 B, p. 89. (Allosauridæ.)
 1881 E, p. 423. (Allosauridæ.)
 1882 A, pp. 84, 85. (Megalosauridæ, Labro-
 sauridæ.)
 1884 B, p. 337. (Megalosauridæ, Labrosaur-
 idæ.)
 1884 G. (Megalosauridæ, Labrosauridæ.)

- Marsh, O. C. 1885 D, p. 764. (Megalosauridæ, La-
 brosauridæ.)
 1890 C, p. 424. (Dryptosauridæ.)
 1896 C, p. 493. (Megalosauridæ, Dryptosau-
 ridæ, Labrosauridæ.)
 1896 C, pp. 203, 239. (Megalosauridæ, Drypto-
 sauridæ, Labrosauridæ.)
 1896 D, p. 206. (Megalosauridæ, Dryptosau-
 ridæ, Labrosauridæ.)
 Nicholson and Lydekker 1889 A, p. 1167.
 Owen, R. 1883 B.
 Seeley, H. G. 1894 A.
 Steinmann and Döderlein, 1890 A, p. 660.
 Zittel, K. A. 1890 A, p. 722.

MEGALOSAURUS Buckland.

Type *M. bucklandi* Meyer.

- Buckland, W. 1824 A.
 Bronn, H. G. 1887 A, p. 530, pl. xxxiv, fig. 1.
 Cope, E. D. 1868 K, p. 239. (Megalosaurus, Pœkil-
 opleuron.)
 1869 M, p. 100. (Pœkilopleuron); p. 108
 (Megalosaurus).
 Deslongchamps-Eudes, J. A. 1838 A, p. 36. (Pœkil-
 opleuron, type *P. bucklandi*, in part.)
 Gaudry, A. 1890 C, p. 227.
 Hulke, J. W. 1879 B.
 Huxley, T. H. 1869 D.
 1870 D.
 Lydekker, R. 1888 B, p. 159.
 Marsh, O. C. 1895 A, p. 408.

- Osborn, H. F. 1900 G, p. 786.
 Owen, R. 1842 A, p. 103.
 1845 B, p. 269.
 1856 A.
 1860 E, p. 258.
 1876 C. (Pœkilopleuron.)
 1883 B, pl. xi.
 Pictet, F. J. 1853 A, p. 467 (Megalosaurus); p.
 497 (Pœkilopleuron).
 Quenstedt, F. A. 1852 A, p. 112.
 Zittel, K. A. 1890 A, p. 722.
 No species of this genus is at present known
 from this country.

DRYPTOSAURUS Marsh. Type *Laelaps aquilunguis* Cope.

- Marsh, O. C. 1877 C, p. 88. (To replace *Laelaps*
 Cope, preoccupied.)
 Unless otherwise indicated the following
 writers refer to this genus under name *Laelaps*.

- Baur, G. 1883 A, p. 441.
 Cope, E. D. 1866 A. (*Laelaps*, type *L. aquilunguis*.)
 1866 E.
 1867 D.

- Cope, E. D. 1868 C.
 1868 K, p. 237.
 1869 M, p. 100.
 1871 B, p. 239.
 1876 I, p. 340.
 1877 H, p. 806.
 1877 T.
 1878 K.
 1892 Z, p. 17, pl. iii.
 Huxley, T. H. 1870 C.
 Leidy, J. 1868 F, p. 199.
 Lippincott, J. S. 1881 A.
 Lydekker, R. 1888 B, pp. 159, 169. (*Dryptosaurus*.)
 Marsh, O. C. 1895 C, p. 493.
 . 1896 C, p. 203.
 1896 D.
 Morse, E. S. 1880 A, p. 4.
 Osborn, H. F. 1893 B, p. 326.
 Zittel, K. A. 1890 A, p. 726.

Dryptosaurus aquilunguis (Cope).

- Cope, E. D. 1866 A. (Laelaps).
 1866 B. (Laelaps aquilunguis, part; L. macropus, part.)
 1866 E. (Laelaps.)
 1867 E, p. 27. (Laelaps.)
 1868 C. (Laelaps.)
 1868 K, p. 237. (Laelaps.)
 1869 B, p. 737. (Laelaps.)
 1869 K, p. 91, pl. ii. (Laelaps.)
 1869 M, pp. 100, 118, 122 J, pls. viii, ix; pl. x, figs. 1-6. (Laelaps.)
 1870 K. (Laelaps.)
 1875 E, p. 249. (Laelaps.)
 1877 T. (Laelaps.)
 Lucas, F. A. 1898 C, p. 97.
 Lydekker, R. 1888 B, p. 170.
 Marsh, O. C. 1877 C, p. 88.
 Osborn, H. F. 1898 N, pp. 843, 844, fig. 3. (*Megalosaurus*.)
 1896 Q, pp. 6, 19, pl. iii. (*Megalosaurus*.)
 Cretaceous; New Jersey.

Dryptosaurus cristatus (Cope).

- Cope, E. D. 1876 I, p. 344. (Laelaps.)
 1877 G, p. 572. (Laelaps.)
 Cretaceous; Montana.

Dryptosaurus explanatus (Cope).

- Cope, E. D. 1876 H, p. 249. (Laelaps.)
 1877 G, p. 572. (Laelaps.)
 Cretaceous; Montana.

Dryptosaurus falcus (Cope).

- Cope, E. D. 1876 H, p. 249. (Laelaps.)
 1877 G, p. 572. (Laelaps.)
 Cretaceous; Montana.

Dryptosaurus hazenianus (Cope).

- Cope, E. D. 1876 I, p. 343. (Laelaps.)
 1877 G, p. 572. (Laelaps.)
 Cretaceous; Montana.

Dryptosaurus incrassatus (Cope).

- Cope, E. D. 1876 H, p. 248. (Laelaps.)
 1876 I, pp. 340, 341. (Laelaps.)
 1877 G, p. 572. (Laelaps.)
 1877 T. (Laelaps.)
 1892 K, p. 240. (Laelaps.)
 1892 Z, p. 17, pl. iii. (Laelaps.)
 Hay, O. P. 1899 G, p. 348.
 Lambe, L. M. 1899 A, pp. 69, 70. (Laelaps.)
 Cretaceous; Montana, British America.

Dryptosaurus kenabekides Hay.

- Hay, O. P. 1899 G, p. 348.
 Leidy, J. 1856 F, p. 72. (*Deinodon horridus*, in part.)
 1860 A, p. 143 (in part), pl. ix, figs. 21-34. (*Deinodon horridus*.)
 1868 F, p. 198. (*Deinodon horridus*.)
 Cretaceous (Laramie); Montana.

Dryptosaurus laevifrons (Cope).

- Cope, E. D. 1876 I, p. 344. (Laelaps.)
 1877 G, p. 572. (Laelaps.)
 Cretaceous; Montana.

Dryptosaurus macropus (Cope).

- Cope, E. D. 1868 C, p. 417. (Laelaps.)
 1866 B. (L. aquilunguis, in part.)
 1869 B, p. 737. (Laelaps.)
 1869 M, p. 118, figs. 31-34. (Laelaps.)
 1875 E, p. 249. (Laelaps.)
 Leidy, J. 1865 A, p. 119. (*Coelosaurus antiquus*, in part, *cf.* Cope.)
 Cretaceous; New Jersey.

Dryptosaurus trihedron (Cope).

- Cope, E. D. 1877 H, p. 806. (Laelaps.)
 1877 Q, p. 5. (Laelaps.)
 1878 M, p. 73. (Laelaps.)
 1878 R. (Syn. of *Hypsirophus discurus*.)
 Jurassic; Colorado.

DEINODON Leidy. Type *D. horridus* Leidy.

- Leidy, J. 1856 F, p. 72.
 Cope, E. D. 1866 A, p. 279. (*Dinodon*, restricted.)
 1868 C. (*Dinodon*.)
 1869 M, pp. 100, 116. (*Aublysodon*; *Dinodon* said to be preoccupied.)
 1875 E, p. 248. (*Aublysodon*.)
 1876 I, p. 341. (*Aublysodon*.)
 Hay, O. P. 1899 G, p. 346.
 Leidy, J. 1856 C, p. 119. (*Deinodon*.)
 1860 A, p. 143, in part. (*Deinodon*.)
 1868 F, p. 198. (*Dinodon*, restricted; *Aublysodon*, type *A. mirandus*.)

- Marsh, O. C. 1892 G, p. 174. (*Aublysodon*.)
 Zittel, K. A. 1890 A, p. 726. (*Aublysodon*.)

Deinodon amplius (Marsh).

- Marsh, O. C. 1892 G, p. 174, pl. ii, fig. 5. (*Aublysodon*.)
 Cretaceous (Laramie); Wyoming?

Deinodon cristatus (Marsh).

- Marsh, O. C. 1892 G, p. 175, pl. iii, fig. 6. (*Aublysodon*.)
 Cretaceous (Laramie); Wyoming?

Deinodon horridus Leidy.*Leidy, J.* 1856 F, p. 72. (In part.)*Cope, E. D.* 1866 A, p. 279. (*Dinodon horridus*, restricted.)1868 C, p. 416. (*Dinodon*.)1869 M, p. 120. (*Aublysodon*.)1871 C, p. 120. (*Aublysodon*.)1874 C, p. 26. (*Aublysodon*.)1875 E, p. 249. (*Aublysodon*.)1876 I, p. 341. (*Aublysodon*.)1877 G, p. 572. (*Aublysodon*.)*Leidy, J.* 1856 C, p. 119. (In part.)

1860 A, p. 143, pl. ix, figs. 36-45; not figs. 21-34; 46-48.

1868 F, p. 198. (*Aublysodon mirandus*.)*Marsh, O. C.* 1892 G, p. 174, pl. iii, fig. 4. (*Aublysodon mirandus*.)

Cretaceous (Laramie); Montana.

The teeth represented on plate ix, of *Leidy* 1860 A, figs. 21-34, 46-48, are by *Cope's* restriction of *Deinodon* left without a name. They possibly belong to *Dryptosaurus* and are in this work given the name *Dryptosaurus kenalekides*.

Deinodon lateralis (Cope).*Cope, E. D.* 1876 H, p. 248. (*Aublysodon*.)1877 G, p. 572. (*Aublysodon*.)

Cretaceous (Laramie); Montana.

ALLOSAURUS Marsh. Type *A. fragilis* Marsh.*Marsh, O. C.* 1877 G, p. 515.*Bibbins, A.* 1896 A, p. 19.*Glebel, C. G.* 1879 A, p. 318.*Lydekker, R.* 1888 B, p. 159.*Marsh, O. C.* 1879 B, p. 90.

1884 B, pla. xi, xii.

1889 B, p. 329.

1896 C, p. 163.

Nicholson and Lydekker 1889 A, p. 1168.*Osborn, H. F.* 1899 H, p. 161, fig. 1, C. D.; figs. 4, 5.

1900 G, pp. 779, 785, figs. 2, 4.

Steinmann and Döderlein 1890 A, p. 660.*Williston, S. W.* 1878 A, p. 46.*Zittel, K. A.* 1890 A, p. 725.**Allosaurus fragilis** Marsh.*Marsh, O. C.* 1877 G, p. 515.*King, C.* 1878 A, p. 346.*Lydekker, R.* 1888 B, p. 154, fig. 25.*Marsh, O. C.* 1879 B, p. 91, pls. viii, x.

1884 B, pl. xiii.

1896 C, p. 163, pl. x, fig. 2; pl. xi, figs. 1, 2

(*Allosaurus*); pl. xiii, fig. 5 (*Labrosaurus*).

1897 C, p. 505, fig. 61.

1899 A, p. 232, fig. 3.

Zittel, K. A. 1890 A, p. 726, fig. 628. (*A. agilis* *errone.*)

Jurassic; Colorado.

CÆLOSAURUS Leidy. Type *C. antiquus* Leidy.*Leidy, J.* 1865 A, p. 119.*Cope, E. D.* 1869 M, p. 119.*Zittel, K. A.* 1890 A, p. 727.**Cœlosaurus antiquus** Leidy.*Leidy, J.* 1865 A, p. 119, pl. iii, fig. 3; pl. xvii, figs. 7-11.*Cope, E. D.* 1869 B, p. 737.

1869 M, pp. 118, 119.

1875 E, p. 249.

Cretaceous; New Jersey.

CREOSAURUS Marsh. Type *C. atrox* Marsh.*Marsh, O. C.* 1878 B, p. 243.

1879 B, p. 90.

1884 B.

1896 C, p. 163.

Nicholson and Lydekker 1889 A, p. 1168.*Williston, S. W.* 1878 A, p. 46.*Zittel, K. A.* 1890 A, p. 725.**Creosaurus atrox** Marsh.*Marsh, O. C.* 1878 B, p. 243, figs. 1, 2.*King, C.* 1878 A, p. 347.*Marsh, O. C.* 1879 B, p. 90, pl. x.

1884 B, pla. ix, xi.

1896 C, p. 163, pl. xii.

Jurassic; Colorado.

ANTRODEMUS Leidy. Type *A. valens* Leidy.*Leidy, J.* 1870 E, p. 3.1873 B, p. 267. (*Poecilopleuron*.)*Marsh, O. C.* 1879 B, p. 91. (*Labrosaurus*, type*Allosaurus lucaris* Marsh.)1884 B, pl. ix. (*Labrosaurus*.)1896 C, p. 163. (*Labrosaurus*.)*Riggs, E. S.* 1900 A, p. 233.*Zittel, K. A.* 1890 A, p. 727. (*Labrosaurus*.)

The identification of *Marsh's Labrosaurus* with *Leidy's Antrodemus* and of *L. ferox* with *A. valens* has been made by Mr. F. A. Lucas, of the U. S. National Museum.

Antrodemus lucaris (Marsh).*Marsh, O. C.* 1878 B, p. 242. (*Allosaurus*.)*King, C.* 1878 A, p. 346. (*Allosaurus*.)*Marsh, O. C.* 1879 B, p. 91. (*Labrosaurus*.)

Jurassic; Colorado.

Antrodemus medius (Marsh).*Marsh, O. C.* 1888 A, p. 93. (*Labrosaurus*.)

Jurassic (Potomac); Maryland.

Antrodemus sulcatus (Marsh).*Marsh, O. C.* 1896 C, p. 270, pl. xiii, fig. 1. (*Labrosaurus*.)

Formation and locality not given.

Antrodemus valens Leidy.

Leidy, J. 1870 E, p. 3. [Poecilopleuron (Antrodemus).]

Leidy, J. 1873 B, pp. 267, 338 (Poecilopleuron); pl. xv, figs. 16-18 (Antrodemus).

Marsh, O. C. 1884 B, p. 333, pl. ix. (Labrosaurus ferox.)

Marsh, O. C. 1896 C, p. 163 (Allosaurus); pl. xiii, figs. 2-4 (Labrosaurus ferox).

Walcott, C. D. 1900 A, p. 23. (Labrosaurus ferox.)

Zittel, K. A. 1890 A, p. 724. (Megalosaurus.)
Jurassic; Colorado.

PARONYCHODON Cope. Type *P. lacustris* Cope.

Cope, E. D. 1876 H, p. 256.

1876 I, p. 345.

Osborn, H. F. 1893 B, p. 320. (Syn.? of Meniscoëmus.)

The position of this genus is very doubtful.

Paronychodon lacustris Cope.

Cope, E. D. 1876 H, p. 256.

1876 I, p. 350.

1877 G, p. 572.

Cretaceous (Laramie); Montana.

ZAPSALIS Cope. Type *Z. abradens* Cope.

Cope, E. D. 1876 I, p. 344.

A genus of doubtful position.

Zapsalis abradens Cope.

Cope, E. D. 1876 I, p. 345

1877 G, p. 572.

Cretaceous (Laramie); Montana.

PALŒOCTONUS Cope. Type *P. appalachianus* Cope.

Cope, E. D. 1877 E, p. 182.

1893 A, p. 15.

A genus of uncertain position.

Palæoctonus appalachianus Cope.

Cope, E. D. 1877 E, p. 182.

1877 X.

1878 FF.

1893 A, p. 15, pl. ii, figs. 2, 3.

Triassic; Pennsylvania.

Palæoctonus dumblianus Cope.

Cope, E. D. 1893 A, p. 16, pl. ii, figs. 5, 6.

Triassic; Texas.

Palæoctonus orthodon Cope.

Cope, E. D. 1893 A, p. 15, pl. ii, fig. 1.

Triassic; Texas.

SUCHOPRION Cope. Type *S. cyphodon* Cope.

Cope, E. D. 1877 E, p. 185.

A genus of uncertain position.

Suchoprion aulacodus Cope.

Cope, E. D. 1878 E, p. 184. (Palæoctonus.)

1878 D, p. 232.

Triassic; Pennsylvania.

Suchoprion cyphodon Cope.

Cope, E. D. 1877 E, p. 185.

1878 FF.

Triassic; Pennsylvania.

Suchoprion sulcidens Cope.

Cope, E. D. 1878 FF. (No description.)

Triassic; Pennsylvania.

TROÖDON Leidy. Type *T. formosus* Leidy.

Leidy, J. 1856 F, p. 72.

Cope, E. D. 1869 M, p. 120.

Leidy, J. 1856 C, p. 119.

1860 A, p. 147.

Zittel, K. A. 1890 A, p. 727.

A genus of doubtful position.

Troödon formosus Leidy.

Leidy, J. 1856 F, p. 72.

Cope, E. D. 1869 M, p. 120.

1874 C, p. 26.

1875 E, p. 248.

1877 G, p. 572.

Leidy, J. 1856 C, p. 119.

1860 A, p. 147, pl. ix, figs. 53-55.

Cretaceous (Laramie); Montana.

ZATOMUS Cope. Type *Z. sarcophagus* Cope.

Cope, E. D. 1871 M, p. 211

1875 V, p. 35.

The position of this genus is doubtful.

Zatomus sarcophagus Cope.

Cope, E. D. 1871 M, p. 211.

1875 V, p. 35.

Emmons, E. 1857 A, p. 62, fig. 34. (No name.)

Mesozoic; North Carolina.

ANCHISAURIDÆ.

- Marsh, O. C. 1885 A, p. 169.
 Gadow, H. 1897 A, p. 204.
 Günther, A. C. 1886 A, p. 443.
 Lydekker, R. 1888 B, p. 174.
 1890 A, p. 246.
 Marsh, O. C. 1882 A, p. 84. (Amphisauridæ.)
 1884 B, p. 338. (Amphisauridæ.)
 1884 G. (Amphisauridæ.)

- Marsh, O. C. 1885 D, p. 765.
 1895 C, p. 498.
 1896 C, pp. 147, 239.
 1896 D, p. 206.
 Nicholson and Lydekker 1889 A, p. 1186.
 Zittel, K. A. 1890 A, p. 730.

ANCHISAURUS Marsh. Type *Megadactylus polyzelus* Hitch.

- Marsh, O. C. 1885 A. (To replace Amphisaurus Marsh, preoccupied.)
 Baur, G. 1883 A, p. 443. (Amphisaurus.)
 1884 B, p. 447. (Amphisaurus.)
 Cope, E. D. 1869 M, p. 122 A. (Megadactylus.)
 1870 S. (Megadactylus.)
 1877 Q, p. 6. (Megadactylus.)
 1878 I, p. 236. (Megadactylus.)
 1886 O, p. 706. (Megadactylus.)
 1887 C, p. 368. (Megadactylus.)
 Dames, W. 1884 A. (Amphisaurus.)
 Marsh, O. C. 1882 A, p. 84. (Amphisaurus, to replace Megadactylus, preoccupied.)
 1889 C, p. 331.
 1893 F, p. 151.
 1893 G.
 1896 C, p. 498.
 1896 C, p. 147.
 Nicholson and Lydekker 1889 A, pp. 1166, 1170.
 Woodward, A. S. 1896 B, p. 198.
 Zittel, K. A. 1890 A, p. 730.

- Marsh, O. C. 1893 C, p. 169, pl. vi.
 1893 F, p. 151, fig. 1.
 1895 C, pl. x, fig. 1.
 1896 C, p. 148, pl. ii, figs. 1-3; pl. iii, figs. 1, 2.
 1896 D, pl. i, fig. 1.
 Woodward, A. S. 1896 B, p. 198, fig. 119.
 Triassic; Connecticut.

Anchisaurus polyzelus (Hitch.).

- Hitchcock, E. 1865 A, p. 39. (Megadactylus.)
 Cope, E. D. 1869 M, p. 122 E, pl. xiii. (Megadactylus.)
 1870 A. (Megadactylus.)
 Hitchcock, E. 1858 A, p. 187. (No name.)
 Marsh, O. C. 1892 F, p. 546, pls. xvi, xvii. (Anchisaurus.)
 1896 C, p. 147, pl. iii, figs. 4, 5. (Anchisaurus.)
 Triassic; Massachusetts.

Anchisaurus solus Marsh.

- Marsh, O. C. 1892 F, p. 545.
 1893 C, p. 169.
 1893 F, p. 151.
 1896 C, p. 149.
 Triassic; Connecticut.

AMMOSAURUS Marsh. Type *Anchisaurus major* Marsh.

- Marsh, O. C. 1891 E, p. 267.
 1892 F, p. 545.
 1893 G, p. 170.
 1896 C, p. 498.
 1896 C, p. 150.

- Ammosaurus major** Marsh.
 Marsh, O. C. 1889 C, p. 331. (Anchisaurus.)
 1891 E, p. 331, fig. 1.
 1892 F, p. 546, pls. xvi, xvii.
 1896 C, p. 147, pl. iii, figs. 3, 6.
 Zittel, K. A. 1890 A, p. 730, fig. 636. (Anchisaurus.)
 Triassic; Connecticut.

BATHYGNATHUS Leidy. Type *B. borealis* Leidy.

- Leidy, J. 1854 H.
 Cope, E. D. 1867 D.
 1870 S.
 Huxley, T. H. 1869 A.
 Leidy, J. 1855 A.
 1868 F, p. 199.
 Marsh, O. C. 1882 A, p. 84.
 1892 C, p. 240.
 1896 C, p. 498.
 Meyer, H. 1855 A, p. 161.
 Nicholson and Lydekker 1889 A, p. 1166.
 Owen, R. 1860 A, p. 163.
 Zittel, K. A. 1890 A, p. 731.

Bathygnathus borealis Leidy.

- Leidy, J. 1854 H, pl. xxxiii.
 Cope, E. D. 1869 M, p. 119.
 Dana, J. D. 1896 A, p. 754, fig. 1180.
 Dawson, J. W. 1868 A, p. 119, fig. 29.
 1878 A, p. 119, fig. 29.
 Lea, I. 1856 B, p. 123.
 1858 A.
 Leidy, J. 1855 A.
 1881 A.
 Lesley, J. P. 1889 A, p. 80, figures.
 Owen, R. 1860 E, p. 252.
 1876 B, p. 359, fig. 9.
 Triassic; Prince Edwards Island.

CLEPSYSAURUS Lea. Type *C. pennsylvanicus* Lea.

Lea, I. 1851 B.

Cope, E. D. 1869 M, p. 122 A

1870 I, p. 444.

1870 S.

1871 M, p. 210.

Emmons, E. 1856 A, p. 298. (*Clepsysaurus*.)

Lea, I. 1853 A, p. 198.

Ledy, J. 1857 B, p. 150.

Marsh, O. C. 1895 C, p. 493.

Nicholson and Lydekker 1889 A, p. 1166.

Zittel, K. A. 1890 A, p. 731.

***Clepsysaurus pennsylvanicus* Lea.**

Lea, I. 1851 B.

Amer. Jour. Science 1852 B.

Cope, E. D. 1866 D, p. 249.

1869 B, p. 733.

1869 M, p. 122 A.

1871 M, p. 210.

1875 V, p. 35, pl. viii, fig. 4.

Dana, J. D. 1896 A, p. 754, fig. 1181.

Emmons, E. 1856 A, p. 299, figs. A, B, and 21.

1857 A, p. 67, in part. (*Clepsysaurus*.)

1860 A, p. 175, figs. 158¹⁻⁵, 160². (*Clepsysaurus*.)

Lea, I. 1851 A. (No generic name.)

1853 A, p. 199, pls. xvii-xix.

1856 B.

1858 A.

Ledy, J. 1854 H, p. 327.

1855 A.

Lealey, J. P. 1889 A, p. 133, figure.

Meyer, H. 1855 A, p. 161.

Wheatley, C. M. 1861 A, p. 44.

Triassic; Pennsylvania, New Jersey, North Carolina.

***Clepsysaurus veatleianus* Cope.**

Cope, E. D. 1877 E, p. 184.

1878 F F. (*C. wheatleianus*.)

Lesley, J. P. 1889 A, p. 134.

Triassic; Pennsylvania.

THECODONTOSAURUS Riley and Stutchbury.

Riley and Stutchbury 1838 A, p. 352.

Cope, E. D. 1877 E, p. 182. (*Palaeosaurus*.)

Huxley, T. H. 1870 D, p. 43. (*Thecodontosaurus*, *Palaeosaurus*.)

Lydekker, R. 1888 B, p. 174.

1890 A, p. 246.

Marsh, O. C. 1895 C, p. 493.

Owen, R. 1842 A, p. 154. (*Thecodontosaurus*, *Palaeosaurus*.)

1845 B, p. 266.

Riley and Stutchbury 1838 A, p. 352. (*Palaeosaurus*, with species *cylindrodon* and *platyodon*.)

Seeley, H. G. 1895 C. (*Thecodontosaurus*, *Palaeosaurus*.)

Zittel, K. A. 1890 A, p. 721 (*Thecodontosaurus*); p. 722 (*Palaeosaurus*).

Thecodontosaurus and *Palaeosaurus* of Riley and Stutchbury are here united. In case *Palaeosaurus* of these authors is distinct, as seems probable, it must be provided with a new name, since *Palaeosaurus* was used by Geoffroy in 1831 in another sense.

***Thecodontosaurus fraserianus* Cope.**

Cope, E. D. 1878 D, p. 232. (*Palaeosaurus*.)

1878 FF.

Triassic; Pennsylvania.

***Thecodontosaurus gibbidus* Cope.**

Cope, E. D. 1878 D, p. 231.

1878 FF.

Triassic; Pennsylvania.

ARCTOSAURUS Adams. Type *A. osborni* Adams.

Adams, A. L. 1875 A, p. 177.

1877 A.

Lydekker, R. 1890 A, p. 250.

Marsh, O. C. 1895 C, p. 493.

1896 C, p. 152.

Nicholson and Lydekker 1889 A, p. 1166.

Zittel, K. A. 1890 A, p. 731.

The position of this genus is doubtful.

***Arctosaurus osborni* Adams.**

Adams, A. L. 1875 A, p. 177, figs. A-D.

1877 A.

Lydekker, R. 1889 L, p. 352, figs. A-D.

1890 A, p. 251, fig. 59, A-D.

Mesozoic; Bathurst Island.

CŒLURIDÆ.

Marsh, O. C. 1881 B. (*Cœluria*, *Cœluridæ*.)

Cope, E. D. 1889 R, p. 864.

Lydekker, R. 1888 B, p. 155.

1890 A, p. 243.

Marsh, O. C. 1881 E, p. 423. (*Cœluria*, *Cœluridæ*.)

1882 A, p. 85. (*Cœluria*, *Cœluridæ*.)

1884 B, p. 838. (*Cœluria*, *Cœluridæ*.)

1884 G. (*Cœluria*, *Cœluridæ*.)

Marsh, O. C. 1885 D, p. 765. (*Cœluria*, *Cœluridæ*.)

1895 C, p. 494. (*Cœluria*, *Cœluridæ*.)

1896 C, p. 240. (*Cœluria*, *Cœluridæ*.)

1896 D, p. 206.

Menzies, M. 1887 A. (*Cœluria*.)

Nicholson and Lydekker 1889 A, p. 1170.

Steinmann and Döderlein 1890 A, p. 661

Zittel, K. A. 1890 A, p. 731.

CÆLURUS Marsh. Type *C. fragilis* Marsh.*Marsh, O. C.* 1879 H, p. 504.*Cope, E. D.* 1887 A, p. 221.

1887 C.

Lydekker, R. 1888 B, p. 155.

1889 H.

Marsh, O. C. 1881 B.

1884 B.

1896 C, p. 155.

Nicholson and Lydekker 1889 A, p. 1170.*Seeley, H. G.* 1887 A.

1898 C, p. 83.

Vetter, B. 1895 A, p. 119.*Zittel, K. A.* 1890 A, p. 731.***Cœlurus agilis* Marsh.***Marsh, O. C.* 1884 B, p. 335, pl. x, figs. 3a, 3b.

1896 C, pl. x, figs. 3, 4.

Jurassic; Colorado.

Cœlurus fragilis* Marsh.Marsh, O. C.* 1879 H, p. 504.*Cope, E. D.* 1881 BB, p. 413. (*Amphicoelias fragillissimus* a synonym?)

1887 C, p. 369.

Marsh, O. C. 1881 B, pl. x.

1884 B, p. 340, pls. xi, xiii.

1896 C, p. 155, pl. vii.

Seeley, H. G. 1888 C, p. 5.*Zittel, K. A.* 1890 A, p. 731, figs. 637-640.

Jurassic; Wyoming.

Cœlurus gracilis* Marsh.Marsh, O. C.* 1888 A, p. 94.*Zittel, K. A.* 1890 A, p. 732.

Jurassic (Potomac); Maryland.

CÆLOPHYSIS Cope. Type not indicated.*Cope, E. D.* 1889 N.*Lydekker, R.* 1888 B, p. 155. (*Tanystropheus*.)***Cœlophysis bauri* Cope.***Cope, E. D.* 1887 C, p. 368. (*Cœlurus*.)1887 A, p. 226. (*Tanystropheus*.)

1889 N.

Zittel, K. A. 1890 A, p. 733. (*Tanystropheus*.)

Triassic; New Mexico.

Cœlophysis longicollis* Cope.Cope, E. D.* 1887 C, p. 368. (*Cœlurus*.)*Cope, E. D.* 1887 A, p. 221. (*Tanystropheus*.)

1889 N.

Zittel, K. A. 1890 A, p. 733. (*Tanystropheus*.)

Triassic; New Mexico.

Cœlophysis willistoni* Cope.Cope, E. D.* 1887 A, p. 227. (*Tanystropheus*.)

1889 N.

Zittel, K. A. 1890 A, p. 733. (*Tanystropheus*.)

Triassic; New Mexico.

TICHOSTEUS Cope. Type *T. lucasani* Cope.*Cope, E. D.* 1877 F, p. 194.

1878 M, p. 84.

Zittel, K. A. 1890 A, p. 732.

A genus of uncertain position.

Tichosteus squifacies* Cope.Cope, E. D.* 1878 H, p. 392.

Jurassic; Colorado.

Tichosteus lucasani* Cope.Cope, E. D.* 1877 F, p. 194.

1890 Q.

Osborn, H. F. 1898 J, p. 227.

Jurassic; Colorado.

CERATOSAURIDÆ.*Marsh, O. C.* 1884 B, p. 330.

1884 E.

1884 G. (*Ceratosauria, Ceratosauridæ*.)1885 D. (*Ceratosauria, Ceratosauridæ*.)

1892 H.

1895 C, p. 494. (*Ceratosauria, Ceratosauridæ*.)1896 C, p. 240. (*Ceratosauria, Ceratosauridæ*.)*Marsh, O. C.* 1896 D, p. 207. (*Ceratosauria, Ceratosauridæ*.)*Lydekker, R.* 1888 B, p. 157. (*Megalosauridæ*, in part.)*Steinmann and Döderlein* 1890 A, p. 660.*Zittel, K. A.* 1890 A, p. 727.**CERATOSAURUS Marsh. Type *C. nasicornis* Marsh.***Marsh, O. C.* 1884 B.*Baur, G.* 1884 B, p. 448.

1890 C, p. 301.

1891 D, p. 446.

Cope, E. D. 1892 K, p. 244. (*Megalosaurus*.)*Dollo, L.* 1884 B.*Fürbringer, M.* 1888 A, p. 1609.*Gaudry, A.* 1890 C, p. 252.*Lydekker, R.* 1888 A, p. 53.

1888 B, p. 157.

1889 C, p. 45.

1893 B, p. 302. (*Megalosaurus*.)1893 E, p. 138. (*Megalosaurus?*.)*Marsh, O. C.* 1884 E.

1889 B, p. 330.

1892 H, p. 347, pl. vii.

Marsh, O. C. 1898 F, p. 152.

1893 I, p. 437.

1895 C, p. 494.

1896 C, p. 156.

1896 D, p. 203.

1897 C, p. 503.

Natural Science 1893 A, p. 138.

Nicholson and Lydekker 1889 A, p. 1168.

Seeley, H. G. 1887 A, p. 225.

Steinmann and Döderlein 1890 A, p. 660.

Vetter, B. 1885 A, p. 111.

Woodward, A. S. 1898 B, p. 199.

Zittel, K. A. 1890 A, p. 727.

Ceratopsus nasicornis Marsh.

Marsh, O. C. 1884 B, p. 330, pls. viii-xi.

Cope, E. D. 1892 K, P. 245. (Megalosaurus)

1892 Z, p. 18.

Marsh, O. C. 1884 E, fig. 1.

1892 H, p. 347, pl. vii.

1893 F, p. 152, pl. vi.

1895 C, p. 499, pl. x, fig. 5; text figs. 9, 10.

1896 C, p. 156, pls. viii-x, fig. 1.; pl. xiv, text figs. 1, 64, 65.

1896 D, p. 202, pl. i, fig. 5; text figs. 9, 10.

1897 C, p. 503, pl. xxv, text fig. 60.

Menzies, M. 1887 A, p. 533.

Walcott, C. D. 1900 A, p. 23.

Woodward, A. S. 1898 B, p. 200, fig. 120.

Zittel, K. A. 1890 A, p. 727, figs. 629-635.

Jurassic; Colorado.

ORNITHOMIMIDÆ.

Marsh, O. C. 1890 A, p. 85.

1890 C, p. 425.

1895 C, p. 494.

Marsh, O. C. 1896 C, pp. 203, 240.

1896 D, p. 207.

Zittel, K. A. 1896 D, p. 207.

ORNITHOMIMUS Marsh. Type *O. velox* Marsh.

Marsh, O. C. 1890 A, p. 84.

Baur, G. 1890 C, p. 303.

Gadow, H. 1897 A, p. 205.

Marsh, O. C. 1895 C, p. 494.

1896 C, p. 204.

1897 C, p. 518.

Zittel, K. A. 1890 A, p. 767.

Ornithomimus grandis Marsh.

Marsh, O. C. 1890 A, p. 85.

1892 E, p. 452.

1896 C, p. 206.

Zittel, K. A. 1890 A, p. 767.

Cretaceous (Laramie); Colorado.

Ornithomimus minutus Marsh.

Marsh, O. C. 1892 E, p. 452.

1896 C, p. 206.

Cretaceous (Laramie); Colorado.

Ornithomimus sedens Marsh.

Marsh, O. C. 1892 E, p. 451.

1896 C, p. 205, figs. 49-52.

Cretaceous (Laramie); Colorado.

Ornithomimus tenuis Marsh.

Marsh, O. C. 1890 A, p. 85.

Cretaceous (Laramie); Colorado.

Ornithomimus velox Marsh.

Marsh, O. C. 1890 A, p. 84, pl. i, figs. 1-3.

Cannon, J. L. 1890 A.

Dana, J. D. 1896 A, p. 847, fig. 1416.

Marsh, O. C. 1896 C, p. 205, pl. lviii, figs. 1-4.

1897 C, pp. 518, 527, figs. 83-86.

Zittel, K. A. 1890 A, p. 766, figs. 677, 678.

Cretaceous (Laramie); Colorado.

HALLOPIDÆ.

Marsh, O. C. 1881 E, p. 423. (Hallopoda, Hallopod-
idæ.)

Cope, E. D. 1883 J, p. 98. (Hallopoda.)

Günther, A. 1886 A, p. 443.

Marsh, O. C. 1882 A, p. 85. (Hallopoda, Hallopod-
idæ.)

1884 B, p. 338.

1885 D.

Marsh, O. C. 1890 B.

1895 C, p. 494. (Hallopoda, Hallopodæ.)

1896 C, p. 240. (Hallopoda, Hallopodæ.)

1896 D, p. 207. (Hallopoda, Hallopodæ.)

Nicholson and Lydekker 1889 A, p. 1169.

Zittel, K. A. 1890 A, p. 693 (Hallopoda); p. 738

(Hallopodæ).

HALLOPUS Marsh. Type *Nanosaurus victor* Marsh.

Marsh, O. C. 1881 E, p. 422.

Baur, G. 1890 E.

Marsh, O. C. 1884 B, p. 338.

1895 C, pp. 488, 494.

1896 C, p. 153.

1896 D, p. 201.

Nicholson and Lydekker 1889 A, p. 1169.

Vetter, B. 1885 A, p. 119.

Zittel, K. A. 1890 A, p. 736.

Hallopus victor Marsh.

Marsh, O. C. 1877 D, p. 255. (Nanosaurus.)

Marsh, O. C. 1881 E, p. 422.

1890 B, p. 417, figure.

1891 F, p. 337.

1895 C, p. 484, text figs. 4, 5.

1896 C, p. 153, pl. vi, text figs. 3, 59, 60.

1896 D, p. 199, figs. 4, 5.

1897 C, p. 482, figs. 25, 26.

Woodward, A. S. 1898 B, p. 200.

Zittel, K. A. 1890 A, p. 736, fig. 643.

Jurassic; Colorado.

Suborder ORTHOPODA Cope.

- Jore, E. D. 1866 E, p. 317.
 Baur, G. 1887 A, p. 487. (Orthopoda.)
 1887 C, p. 101. (Orthopoda.)
 1890 B. (Orthopoda.)
 1891 A. (Iguanodontia.)
 1891 B. (Orthopoda.)
 1891 C, p. 354. (Iguanodontia.)
 1891 D, p. 451. (Iguanodontia.)
 Cope, E. D. 1869 M, p. 90. (Orthopoda.)
 1871 B, p. 234. (Orthopoda.)
 1882 Q. (Orthopoda.)
 1883 J, p. 98. (Orthopoda.)
 1889 R, p. 864. (Orthopoda.)
 1891 N, p. 43. (Orthopoda.)
 1896 B, p. 68. (Orthopoda.)
 Dollo, L. 1888 B. (Iguanodontia.)
 Fürbringer, M. 1888 A.
 Fürbringer, M. 1900 A.
 Gadow, H. 1897 A, p. 204.
 1896 A, p. 22.
 Lydekker, R. 1888 B, p. 175. (Ornithopoda.)
 Marsh, O. C. 1894 E, p. 90. (Predentata.)
 1895 C, p. 496. (Predentata.)
 1896 C, pp. 186, 242. (Predentata.)
 1896 D, p. 209. (Predentata.)
 Nicholson and Lydekker 1889 A, p. 1152. (Ornithopoda.)
 Osborn, H. F. 1900 G, p. 786. (Iguanodontia.)
 Seeley, H. G. 1888 B. (Ornithischia.)
 1888 G. (Ornithischia.)
 Steinmann and Döderlein 1890 A, p. 663. (Orthopoda.)
 Zittel, K. A. 1890 A, pp. 692, 736. (Orthopoda.)

Superfamily STEGOSAUROIDEA nom. nov.

- This group is called by the following writers the *Stegosauria*.
 Baur, G. 1888 A, p. 436.
 1884 A.
 Cope, E. D. 1880 R.
 1883 J, p. 96.
 Dollo, L. 1892 C, p. 11. ("Stegosauriens.")
 Fürbringer, M. 1888 A.
 1900 A, p. 348.
 Gadow, H. 1897 A, p. 206. (Stegosauri.)
 1896 A, p. 22. (Stegosauri.)
 Haeckel, E. 1896 A, p. 387. (Pachypoda.)
 Krause, W. 1881 A.
 Lydekker, R. 1888 B, p. 175.
 1889 C, p. 43.
 Marsh, O. C. 1877 F, p. 513.
 1878 G, p. 224.
 1880 C.
 1881 A.
 Marsh, O. C. 1882 A, p. 83.
 1881 E, p. 423.
 1884 G.
 1885 D.
 1887 C.
 1888 D.
 1889 B, p. 326.
 1891 D, p. 181.
 1891 J, p. 387.
 1895 C, p. 496.
 1896 C, pp. 193, 242.
 1896 D, p. 209.
 1897 C, p. 498.
 Science 1885 B.
 Steinmann and Döderlein 1890 A, p. 663.
 Vetter, B. 1885 A, p. 117.
 Wiedersheim, R. 1881 A.
 Zittel, K. A. 1890 A, pp. 693, 740.

STEGOSAURIDÆ.

- Marsh, O. C. 1880 C, p. 259.
 Cope, E. D. 1896 B, p. 70. (Hypsirophidæ.)
 Lydekker, R. 1888 B, p. 176. (Omosauridæ.)
 1889 L.
 1890 A, p. 251.
 Marsh, O. C. 1881 E, p. 423.
 1882 A, p. 83.
 1884 B, p. 336.
 Marsh, O. C. 1884 G.
 1885 D, p. 764.
 1895 C, p. 496.
 1896 C, p. 242.
 1896 D, p. 209.
 Nicholson and Lydekker 1889 A, p. 1161.
 Steinmann and Döderlein 1890 A, p. 664.
 Zittel, K. A. 1890 A, p. 744.

STEGOSAURUS Marsh. Type *S. armatus* Marsh.

- Marsh, O. C. 1877 F, p. 513.
 Cope, E. D. 1878 H, p. 389. (Hypsirophus.)
 1878 R. (Hypsirophus, type *H. discurus*.)
 1888 Z. (Hypsirophus.)
 1892 Z, p. 18. (Hypsirophus.)
 Koken, E. 1897 A, p. 51.
 Krause, W. 1881 A.
 Lydekker, R. 1888 B, p. 177. (Omosaurus, Stegosaurus.)
 1889 F, p. xi.
 Lydekker, R. 1890 A, p. 258.
 1893 B, p. 302. (Hypsirophus.)
 Marsh, O. C. 1880 C, p. 253.
 1881 A.
 1883 A, p. 85.
 1887 C.
 1888 D.
 1889 B, p. 327.
 1891 D.
 1891 J.

Marsh, O. C. 1892 G, p. 174.

1893 I, p. 438. (*Stegosaurus*, *Hypsiprophus*.)

1895 C, p. 497.

1896 C, pp. 186, 242.

1897 C, p. 498.

Nicholson and Lydekker 1889 A, p. 1161.

Owen, R. 1875 C, p. 45. (*Omosaurus*.)

Steinmann and Döderlein 1890 A, p. 664.

Woodward, A. S. 1898 B, p. 210.

Zittel, K. A. 1890 A, p. 726 (*Hypsiprophus*); p. 744. (*Stegosaurus*).

***Stegosaurus affinis* Marsh.**

Marsh, O. C. 1881 A, p. 169.

1896 C, p. 191.

Jurassic; Wyoming?

***Stegosaurus armatus* Marsh.**

Marsh, O. C. 1877 F, p. 513.

King, C. 1878 A, p. 346.

Lydekker, R. 1888 B, p. 179, fig. 32.

Marsh, O. C. 1879 H, p. 504.

1880 C, p. 253 (part), pl. vi (except figs. 4, 5, which belong to *Diplodocus*).

1891 D, p. 179.

1896 C, p. 188.

Jurassic; Colorado.

***Stegosaurus discurus* (Cope).**

Cope, E. D. 1878 R. (*Hypsiprophus*.)

1878 H, p. 389. (*Hypsiprophus*.)

Jurassic; Colorado.

***Stegosaurus duplex* Marsh.**

Marsh, O. C. 1887 C, p. 416.

1881 A, p. 168 (pelvis), pl. vi, fig. 1. (*S. ungulatus*.)

1888 D, p. 14.

1891 D, p. 179.

1896 C, p. 193.

Jurassic; Wyoming.

***Stegosaurus seeleyanus* (Cope).**

Cope, E. D. 1879 R. (*Hypsiprophus*.)

Jurassic; Colorado.

***Stegosaurus stenops* Marsh.**

Marsh, O. C. 1887 C, p. 114, pl. vi.

Cope, E. D. 1892 Z, p. 18. (*Hypsiprophus*.)

Lydekker, R. 1888 B, p. 176, fig. 31.

Marsh, O. C. 1888 D, pl. i.

1890 C, p. 426, pl. vii, fig. 2.

1891 D, p. 179.

1896 C, p. 186, pl. xliii, pl. xlvii, fig. 3.

1897 C, p. 499, fig. 52.

Woodward, A. S. 1898 B, p. 212, fig. 131.

Zittel, K. A. 1890 A, p. 745, figs. 650, 654.

Jurassic; Colorado.

***Stegosaurus sulcatus* Marsh.**

Marsh, O. C. 1887 C, p. 415, pl. viii, figs. 4-6.

1888 D, pl. ii, figs. 4-6.

1896 C, p. 193, pl. i, figs. 4-6.

Jurassic; Colorado?

***Stegosaurus unguatus* Marsh.**

Marsh, O. C. 1879 H, p. 504.

Cope, E. D. 1880 R.

1881 BB, pp. 254, 340. (*Hypsiprophus*.)

Fürbringer, M. 1900 A, p. 351, figs. 121, 126.

Geinitz and Deichmüller 1882 A, p. 15.

Hutchison, H. N. 1893 A, p. 110, pl. xi.

Lydekker, R. 1893 B, p. 304, fig. 3. (*Hypsiprophus*.)

Marsh, O. C. 1881 A (part), pls. vi-viii (except fig. 1, pl. vi, which belongs to *S. duplex*).

1887 C, p. 415, pls. vii, viii.

1888 D, pl. ii, figs. 1-3.

1891 D, pl. ix.

1891 J, pl. xi.

1892 G, p. 176, pl. iv.

1894 E, pl. vii, fig. 6.

1896 C, p. 188, pl. xlv, figs. 1, 3, 4; pls. xlv-

xlvii; pl. xlviii, figs. 1, 2; pl. xlix; pl. i,

figs. 1-3; pl. iii.

1896 D, pl. i, fig. 8.

1897 C, p. 498, pl. xxii, text figs. 54-57.

Woodward, A. S. 1898 B, p. 211, fig. 130.

Zittel, K. A. 1890 A, p. 745, figs. 651-653, 656-660.

Jurassic; Wyoming.

DIRACODON Marsh. Type *D. laticeps* Marsh.

Marsh, O. C. 1881 E, p. 421.

1887 C, p. 416.

1888 D, p. 14.

1891 D, p. 181.

1896 C, p. 497.

1896 C, p. 193.

Nicholson and Lydekker 1889 A, p. 1163.

Zittel, K. A. 1890 A, p. 748.

***Diracondon laticeps* Marsh.**

Marsh, O. C. 1881 E, p. 421.

1887 C, p. 416, pl. ix.

1888 D, pl. iii.

1896 C, p. 193, pl. ii.

Jurassic; Wyoming.

PRICONODON Marsh. Type *P. crassus* Marsh.

Marsh, O. C. 1888 A, p. 93.

1896 C, p. 187.

Zittel, K. A. 1890 A, p. 748.

***Priconodon crassus* Marsh.**

Marsh, O. C. 1888 A, p. 93, figs. 3-9.

1896 C, pl. xlii, fig. 2.

Walcott, C. D. 1900 A, p. 23.

PALÆOSCINCUS Leidy. Type *P. costatus* Marsh.*Leidy, J.* 1856 F, p. 72.

Cope, E. D. 1869 M, p. 99.

Leidy, J. 1856 C, p. 118.

Marsh, O. C. 1899 B, p. 328.

1892 G, p. 173.

1896 C, p. 497.

1896 C, p. 225.

Zittel, K. A. 1890 A, p. 748.

The affinities of this genus are uncertain.

Palæoscincus costatus* Leidy.Leidy, J.* 1856 F, p. 72.

Cope, E. D. 1869 M, p. 99.

Cope, E. D. 1874 C, p. 26.

1875 E, p. 248.

1877 G, p. 572.

Leidy, J. 1856 C, p. 118.

1860 A, p. 146, pl. ix, figs. 49-61; pl. xi, fig. 8.

Marsh, O. C. 1896 C, p. 225.

Cretaceous (Laramie); Montana.

***Palæoscincus latus* Marsh.**

Marsh, O. C. 1892 G, p. 173, pl. iii, fig. 3.

1896 C p. 225, pl. lxxxv.

Cretaceous (Laramie); Wyoming.

DYSTROPHÆUS Cope. Type *D. vizmalæ* Cope.

Cope, E. D. 1877 B, p. 579.

1877 K, p. 81.

Marsh, O. C. 1896 C, p. 497.

Zittel, K. A. 1890 A, p. 749.

A genus of uncertain relationships.

***Dystrophæus vizmalæ* Cope.**

Cope, E. D. 1877 B, p. 581.

1877 K, p. 34, text fig. 3.

1878 M, p. 84.

Marsh, O. C. 1896 C, p. 152.

Triassic?; Utah.

HYPsIBEMA Cope. Type *H. crassicauda* Cope.

Cope, E. D. 1869 I.

1869 M, p. 122G.

1871 M, p. 211.

1875 V, p. 86.

Zittel, K. A. 1890 A, p. 748.

A genus of uncertain position.

***Hypsibema crassicauda* Cope.**

Cope, E. D. 1869 I.

1869 M, p. 122 G, pl. i, figs. 14, 15.

1871 M, p. 211.

1875 E, p. 247.

1875 V, p. 86, pls. vi, vii.

Nopcea, F. B. 1899 A, p. 557.

Cretaceous; New Jersey.

NODOSAURIDÆ.

Marsh, O. C. 1890 C, p. 425.

1896 C, p. 497.

Marsh, O. C. 1896 C, p. 248.

1896 D, p. 210.

NODOSAURUS Marsh. Type *N. textilis* Marsh.

Marsh, O. C. 1889 E, p. 175.

1896 C, p. 497.

1896 C, p. 225.

Nicholson and Lydekker 1899 A, p. 1164.

Zittel, K. A. 1890 A, p. 754.

***Nodosaurus textilis* Marsh.**

Marsh, O. C. 1889 E, p. 175, figure.

Lambe, L. M. 1899 A, p. 70. (Identification doubtful.)

Marsh, O. C. 1896 C, p. 225, pl. lxxxv, fig. 5.

Cretaceous; Wyoming, British America.

Superfamily CERATOPSOIDEA nom. nov.

Dollo, L. 1892 C, p. 12. ("Ceratopsia.")

Fürbringer, M. 1900 A, p. 348. (Ceratopsia.)

Gadow, H. 1897 A, p. 206. (Ceratopsia.)

1898 A, p. 23. (Ceratopsia.)

Marsh, O. C. 1890 C, p. 418. (Ceratopsia.)

Marsh, O. C. 1896 C, p. 497. (Ceratopsia.)

1896 C, p. 248. (Ceratopsia.)

1896 D, p. 210. (Ceratopsia.)

Zittel, K. A. 1890 A, p. 749. (Ceratopsia.)

CERATOPSIDÆ.

- Marsh, O. C. 1888 C, p. 478.
 Baur, G. 1891 A. (Agathaumidæ.)
 1891 C, p. 354. (Agathaumidæ.)
 Cannon, G. L. 1888 A, p. 215.
 Cope, E. D. 1889 Q, p. 715. (Agathaumidæ.)
 1889 R, p. 864. (Agathaumidæ.)
 1891 N, p. 43. (Agathaumidæ.)
 1898 B, p. 70. (Agathaumidæ.)
 Marsh, O. C. 1889 G.
 1890 A, p. 83.
 1890 C, p. 418.

- Marsh, O. C. 1890 F.
 1891 B.
 1891 C.
 1891 G.
 1892 A.
 1895 C, p. 497.
 1896 C, pp. 206, 243.
 1896 D, p. 210.
 1897 C, p. 509.
 Nicholson and Lydekker 1889 A, p. 1163.
 Steinmann and Döderlein 1890 A, p. 665.

AGATHAUMAS Cope. Type *A. sylvestris* Cope.

- Cope, E. D. 1872 Q.
 Amer. Geologist 1891 D.
 Baur, G. 1891 A.
 1891 C, p. 354.
 1891 D, p. 450.
 Cope, E. D. 1874 B, p. 444 (Agathaumas); pp. 448, 451 (Polyonax, type *P. mortuarius*).
 1874 C, p. 17 (Agathaumas); p. 24 (Polyonax).
 1875 E, p. 53 (Agathaumas); p. 63 (Polyonax).
 1883 J, p. 99.
 1888 Z. (Polyonax.)
 1889 A. (Polyonax.)
 1889 Q, p. 715. (Polyonax.)
 1889 T, p. 906. (Polyonax.)
 1891 N, p. 43.
 1892 T, p. 758.
 Marsh, O. C. 1893 I, p. 438.
 1895 C, p. 497.
 1896 C, p. 217. (Agathaumas; Polyonax.)
 Osborn, H. F. 1893 B, p. 326.
 Zittel, K. A. 1890 A, p. 751. (Agathaumas, Polyonax.)

Agathaumas mortuarius Cope.

- Cope, E. D. 1874 B, pp. 448, 451. (Polyonax.)
 1874 C, p. 25. (Polyonax.)
 1875 E, p. 64, pl. ii, figs. 3-5; pl. iii, figs. 1-4. (Polyonax.)
 1889 Q, p. 715.
 Cretaceous (Laramie); Colorado.

Agathaumas sylvestris Cope.

- Cope, E. D. 1872 Q.
 Baur, G. 1891 A.
 Cope, E. D. 1872 EE, p. 279.
 1872 FF.
 1873 A.
 1874 B, pp. 442, 445.
 1874 C, pp. 16, 18.
 1875 E, pp. 54, 248, pls. iv, v; pl. vi, figs. 1-4.
 1878 S, p. 245.
 1889 Q, p. 715.
 1891 N, p. 43.
 1892 T, p. 758.
 Cretaceous (Laramie); Wyoming.

TRICERATOPS Marsh. Type *Ceratops horridus* Marsh.

- Marsh, O. C. 1889 E, p. 173.
 Ameghino, F. 1896 A, p. 391.
 Amer. Geologist 1891 D.
 Baur, G. 1891 A. (Agathaumus.)
 1891 D, p. 450. (Agathaumus.)
 Cope, E. D. 1889 F, p. 906. (Polyonax.)
 Fürbringer, M. 1900 A, p. 350.
 Lydekker, R. 1893 E, p. 138.
 Marsh, O. C. 1889 G, p. 502.
 1890 C, p. 418.
 1890 F, p. 2.
 1891 B, p. 167.
 1891 C, p. 339.
 1893 B.
 1895 C, p. 497.
 1896 C, p. 208.
 1897 C, p. 510.
 1898 B, p. 407.
 Natural Science 1893 A.
 Nicholson and Lydekker 1889 A, p. 1168.
 Seeley, H. G. 1893 A, p. 438.
 Steinmann and Döderlein 1890 A, p. 665.
 Woodward, A. S. 1898 B, p. 213.
 Zittel, K. A. 1890 A, pp. 750, 752. (Syn. ? of Monoclonius.)

Triceratops calicornis Marsh.

- Marsh, O. C. 1898 A, p. 92.
 Walcott, C. D. 1900 A, p. 23. (*T. californis*)
 Cretaceous; Wyoming.

Triceratops elatus Marsh.

- Marsh, O. C. 1891 E, p. 265.
 Cretaceous (Laramie); Wyoming.

Triceratops galeus Marsh.

- Marsh, O. C. 1889 E, p. 174.
 1897 C, p. 527.
 Cretaceous (Laramie), Colorado.

Triceratops horridus Marsh.

- Marsh, O. C. 1889 C, p. 384. (Ceratops.)
 1889 E, p. 173.
 1889 G, p. 502.
 1890 C, p. 426, pl. vi, figs. 7-9.
 1891 B, p. 178, pl. ix.
 1891 G.
 1896 C, p. 208, pl. lxix, figs. 10-12.
 1897 C, p. 527.
 Zittel, K. A. 1890 A, p. 752, fig. 665.
 Cretaceous (Laramie); Wyoming, Colorado.

Triceratops obtusus Marsh.*Marsh, O. C.* 1896 A, p. 92.*Walcott, C. D.* 1900 A, p. 23,
Cretaceous (Laramie); Wyoming.**Triceratops prorsus Marsh.***Marsh, O. C.* 1890 A.*Dana, J. D.* 1896 A, p. 846, figs. 1411-1413.*Fürbringer, M.* 1900 A, p. 351, figs. 123, 125, 128.*Hutchison, H. N.* 1898 A, p. 116, pl. xi, text fig. 30.*Lydekker, R.* 1898 B, p. 804, fig. 4. (Agathau-
mus.)*Marsh, O. C.* 1890 C, p. 425, pl. v, figs. 3-5; pl. vi,
figs. 5, 6.

1891 B, p. 177, pls. i-ix.

1891 C, p. 339, pl. xv.

1892 A, p. 84, pl. iii, fig. 6.

1894 E, pl. vii, fig. 4.

1896 C, pl. x, fig. 10.

1896 C, p. 208, pl. lix; pl. lx, fig. 4; pl. lxi,
figs. 1-8; pl. lxiv; pl. lxviii; pl. lxix, figs.

1-3, 7-9; pls. lxv, lxvi; pl. lxvii, figs. 2-4.

1896 D, pl. i, fig. 11.

1897 C, p. 511, pl. xxvii; text figs. 75, 76.

Woodward, A. S. 1896 B, p. 213, fig. 132.

Cretaceous (Laramie); Wyoming.

Triceratops serratus Marsh.*Marsh, O. C.* 1890 A, p. 81.*Dana, J. D.* 1896 A, p. 846, fig. 1414.*Marsh, O. C.* 1890 C, p. 425, pl. v, fig. 2; pl. vi, figs.
1-6.

1891 B, p. 177, pls. i, ii.

1892 A, p. 84, pl. iii.

1896 C, p. 208, pl. lx, fig. 3; pl. lxi, figs. 7,
9, 10.

1897 C, p. 512, fig. 78.

Woodward, A. S. 1898 B, p. 214, fig. 133.*Zittel, K. A.* 1890 A, p. 752, figs. 661, 664.

Cretaceous (Laramie); Wyoming.

Triceratops sulcatus Marsh.*Marsh, O. C.* 1890 C, p. 422.*Walcott, C. D.* 1900 A, p. 23.

Cretaceous (Laramie); Wyoming.

Triceratops sp. indet.*Lambe, L. M.* 1899 A, p. 70.

Cretaceous; British America.

STERRHOLOPHUS Marsh. Type *Triceratops flabellatus* Marsh.*Marsh, O. C.* 1891 C, p. 340.

1896 C, p. 497.

1896 C, p. 216.

Woodward, A. S. 1898 B, p. 216.**Sterrhopholophus flabellatus Marsh.***Marsh, O. C.* 1899 E, p. 174. (Triceratops.)

1899 G, p. 506, pl. xii. (Triceratops.)

1890 C, p. 425, pl. v, fig. 1; pl. vii, fig. 1.
(Triceratops.)*Marsh, O. C.* 1890 F, pl. i. (Triceratops.)

1891 B, p. 177, pls. i, vii, ix. (Triceratops.)

1891 C, p. 340.

1892 A, p. 84, pl. iii, fig. 2.

1896 C, p. 208, pl. lx, figs. 1, 2; pl. lxxvi, fig. 1;
pl. lxxxii.

1897 C, p. 511, fig. 77.

Woodward, A. S. 1898 B, p. 215, fig. 134.*Zittel, K. A.* 1890 A, p. 750, figs. 662, 663.

Cretaceous (Laramie); Wyoming.

TOROSAURUS Marsh. Type *T. latus* Marsh.*Marsh, O. C.* 1891 E, p. 266.

1892 A, p. 81, pls. ii, iii.

1893 I, p. 438.

1895 C, p. 497.

1896 C, p. 214.

1898 B, p. 407.

Torosaurus gladius Marsh.*Marsh, O. C.* 1891 E, p. 266.*Dana, J. D.* 1896 A, p. 846, fig. 1415.*Marsh, O. C.* 1892 A, p. 81, pl. ii.

1896 C, p. 215, pl. lxii, fig. 2; lxiii, text fig. 54.

Cretaceous (Laramie); Wyoming.

Torosaurus latus Marsh.*Marsh, O. C.* 1891 E, p. 266.

1892 A, p. 81, pl. ii.

1896 C, p. 214, pl. lxii, fig. 1.

Cretaceous (Laramie); Wyoming.

MONOCLONIUS Cope. Type *M. crassus* Cope.*Cope, E. D.* 1876 H, p. 255.*Amer. Geologist*, 1891 D.*Baur, G.* 1890 E, p. 570.

1891 A.

1891 D, p. 450.

Cope, E. D. 1883 J, p. 99.

1889 Q, p. 716.

1889 T, p. 906.

Hatcher, J. B. 1896 A.*Marsh, O. C.* 1896 C, p. 497.*Marsh, O. C.* 1896 C, p. 217.*Zittel, K. A.* 1890 A, p. 752. (Syn? of *Triceratops*.)**Monoclonius crassus Cope.***Cope, E. D.* 1876 H, p. 255.*Baur, G.* 1891 A.*Cope, E. D.* 1877 G, p. 573.

1890 Q.

1896 E, fig. 2.

1889 Q, p. 715, pl. xxxiii, fig. 1.

Secley, H. G. 1887 B.

Zittel, K. A. 1890 A, p. 752.

Cretaceous (Laramie); Montana.

Monoclonius fassus Cope.

Cope, E. D. 1889 Q, p. 717.

Cretaceous (Laramie); Montana.

Monoclonius recurvicornis Cope.

Cope, E. D. 1889 Q, p. 716, pl. xxxiv, fig. 1.

1877 G, p. 588, pl. xxxiv, figs. 7, 8. ("Dinosaurian.")

Zittel, K. A. 1890 A, p. 752.

Cretaceous (Laramie); Montana.

Monoclonius sphenocerus Cope.

Cope, E. D. 1889 Q, p. 716, pl. xxxiii, fig. 3.

Osborn, H. F. 1898 N, pp. 842, 844, fig. 1. (Agathaum.)

1898 Q, p. 5, pl. i, fig. 1. (Agathaumus.)

Cretaceous (Laramie); Montana.

CERATOPS Marsh. Type *C. montanus* Marsh.

Marsh, O. C. 1888 C, p. 477.

Amer. Geologist 1891 D.

Baur, G. 1890 E, p. 570. (Monoclonius.)

1891 A.

1891 D, p. 450. (Monoclonius.)

Cope, E. D. 1889 T, p. 906. (Monoclonius.)

Hatcher, J. B. 1896 A.

Marsh, O. C. 1890 F, p. 4.

1891 C, p. 340.

1896 C, p. 497.

1896 C, p. 216.

Nicholson and Lydekker 1889 A, p. 1163.

Zittel, K. A. 1890 A, p. 751. (Syn. of Polyonax.)

Ceratops alticornis Marsh.

Marsh, O. C. 1887 B, p. 323, figs. 1, 2. (Bison.)

Barbour, E. H. 1890 B, p. 392, figs. 5, 6.

Cope, E. D. 1889 A. (Polyonax.)

Marsh, O. C. 1889 E, p. 174.

1897 C, pp. 512, 527, figs. 79, 80.

Walcott, C. D. 1900 A, p. 23.

Cretaceous (Laramie); Colorado.

Ceratops montanus Marsh.

Marsh, O. C. 1888 C, p. 477, pl. xi.

1889 B, p. 327.

1890 A, p. 83.

1892 A, p. 84, pl. iii, fig. 4.

1896 C, p. 216, pl. lxiii, fig. 1.

Walcott, C. D. 1900 A, p. 23.

Cretaceous (Laramie); Montana.

Ceratops paucidens Marsh.

Marsh, O. C. 1889 C, p. 336. (Hadrosaurus.)

1890 A, p. 83.

Cretaceous (Laramie); Montana.

CLAORHYNCHUS Cope. Type *C. trihedrus* Cope.

Cope, E. D. 1892 T, p. 757.

Claorhynchus trihedrus Cope.

Cope, E. D. 1892 T, p. 757.

Cretaceous (Laramie); Montana.

MANOSPONDYLUS Cope. Type *M. gigas* Cope.

Cope, E. D. 1892 T, p. 757.

Manospondylus gigas Cope.

Cope, E. D. 1892 T, p. 757.

Cretaceous (Laramie).

Superfamily **IGUANODONTOIDEA** *nom. nov.*

This group is referred to by the following writers under the name *Ornithopoda*, and regarded usually either as an order or a suborder.

Baur, G. 1883 A, p. 486.

1884 A.

1887 C, p. 102.

Cope, E. D. 1882 Q. (Ornithopoda.)

1883 J, p. 98.

Dollo, L. 1892 C, p. 11. (Ornithopodes.)

Fürbringer, M. 1888 A.

1900 A.

Gadow, H. 1897 A, p. 205.

1898 A, p. 22.

Haeckel, E. 1896 A, p. 339.

Hulke, J. W. 1883 B. (On Hypsilophodon.)

Lydekker, R. 1888 B, p. 175.

1889 C.

Marsh, O. C. 1881 E, p. 423.

1882 A, p. 84.

1884 G.

1885 D, p. 764.

1887 C, p. 417.

1889 B, p. 328.

1894 E.

1896 C, p. 497.

1896 C, pp. 226, 243.

1896 D, p. 210.

Nicholson and Lydekker 1889 A, p. 1152.

Science 1886 B.

Steinmann and Döderlein 1890 A, p. 665.

Vetter, B. 1885 A, p. 118.

Woodward, A. S. 1898 B, p. 205.

Zittel, K. A. 1890 A, pp. 693, 754.

CAMPTOSAURIDÆ.

- Marsh, O. C.* 1881 E, p. 423. (Camptonotidæ.)
Dollo, L. 1888 B. (Camptonotidæ.)
Lydekker, R. 1888 B, p. 191. (Iguanodontidæ, in part.)
Marsh, O. C. 1882 A, p. 84. (Camptonotidæ.)
 1884 G. (Camptonotidæ.)
 1885 A.
 1885 D.

- Marsh, O. C.* 1896 C, p. 497. (Camptosauridæ, Laosauridæ.)
 1896 C, pp. 196, 248. (Camptosauridæ, Laosauridæ.)
 1896 D, p. 210. (Camptosauridæ, Laosauridæ.)
Steinmann and Döderlein 1890 A, p. 665.
Zittel, K. A. 1890 A, p. 755.

CAMPTOSAURUS Marsh. Type *Camptonotus dispar* Marsh.

- Marsh, O. C.* 1885 A. (To replace *Camptonotus*, preoccupied.)
Baur, G. 1883 A, p. 437. (Camptonotus.)
Dollo, L. 1888 E. (Camptonotus.)
Lydekker, R. 1888 B, p. 192.
 1889 C, p. 46.
 1890 A, p. 257.
Marsh, O. C. 1879 H, p. 501. (Camptonotus, type *C. dispar*.)
 1881 A, p. 168.
 1894 A.
 1894 E, p. 85.
 1894 G.
 1896 C, p. 497.
 1896 C, pp. 196, 201.
 1897 C, p. 502.
 1899 A, p. 251.
Nicholson and Lydekker 1889 A, pp. 1152, 1155.
Steinmann and Döderlein 1890 A, p. 665.
White, C. A. 1883 A.
Williston, S. W. 1890 C, p. 472.
Zittel, K. A. 1890 A, p. 755.

Camptosaurus amplus Marsh.

- Marsh, O. C.* 1879 H, p. 503. (Camptonotus.)
 1885 A.
 1896 C, p. 196.
 Jurassic; Wyoming?

Camptosaurus dispar Marsh.

- Marsh, O. C.* 1879 H, p. 501, pl. iii. (Camptonotus.)
Fürbringer, M. 1900 A, p. 350.
Lydekker, R. 1888 B, p. 192, fig. 36.
Marsh, O. C. 1885 A.
 1892 G, p. 176, pl. v.
 1894 A, pl. vi.
 1894 E, p. 85, pl. v, fig. 1.
 1894 G, pl. vi.
 1896 C, p. 196, pls. liv, lvi.
 1896 D, pl. i, fig. 7.
 1897 C, p. 502, pl. xxiii.
 1899 A, p. 232, fig. 2.
Williston, S. W. 1890 C. (Cumnoria.)
Zittel, K. A. 1890 A, p. 756, fig. 666, B. C.
 Jurassic; Wyoming.

Camptosaurus medius Marsh.

- Marsh, O. C.* 1894 E, p. 85, pl. iv.
 1896 C, p. 196, pl. liii.
 1897 C, p. 502, figs. 58, 59.
 Jurassic; Colorado?

Camptosaurus nanus Marsh.

- Marsh, O. C.* 1894 E, p. 85, pl. v, fig. 3.
 1896 C, p. 196, pl. iv, fig. 2.
Walcott, C. D. 1900 A, p. 23.
 Jurassic; Wyoming?

LAOSAURUS Marsh. Type *L. celer* Marsh.

- Marsh, O. C.* 1878 B, p. 244.
Giebel, C. G. 1879 A, p. 317.
Marsh, O. C. 1878 F, p. 415.
 1879 B, pp. 89, 90.
 1879 H, p. 501.
 1894 E, p. 86.
 1896 C, p. 498.
 1896 C, pp. 199, 201.
 1897 C, p. 503.
Nicholson and Lydekker 1889 A, p. 1159.
Williston, S. W. 1878 A, p. 45.
Zittel, K. A. 1890 A, p. 755.

Laosaurus celer Marsh.

- Marsh, O. C.* 1878 B, p. 244.
King, C. 1878 A, p. 346.
Marsh, O. C. 1896 C, p. 199.
 Jurassic; Wyoming.

Laosaurus consors Marsh.

- Marsh, O. C.* 1894 E, p. 87, pl. v, fig. 4; pl. vi, fig. 1; pl. vii, fig. 1.
 1895 C, pl. x, fig. 4.
 1896 C, p. 199, pl. iv, figs. 1, 3; pl. lvii; text fig. 61.
 1896 D, p. 199, pl. i, fig. 4; text fig. 6.
 1897 C, p. 503, pl. xxiv.
 Jurassic; Wyoming.

Laosaurus gracilis Marsh

- Marsh, O. C.* 1878 B, p. 244.
King, C. 1878 A, p. 436.
Marsh, O. C. 1896 C, p. 199.
 Jurassic; Colorado.

DRYOSAURUS Marsh. Type *Laosaurus altus* Marsh.

- Marsh, O. C.* 1894 E, p. 86.
 1896 C, p. 498.
 1896 C, pp. 198, 201.
Dryosaurus altus Marsh.
Marsh, O. C. 1878 F, p. 415, pls. ix, x. (Laosaurus.)

- Marsh, O. C.* 1879 A, pl. viii, fig. 1. (Laosaurus.)
 1892 G, p. 176. (Laosaurus.)
 1894 E, p. 86, pl. vii, fig. 2.
 1896 C, p. 198, pl. iv, fig. 4.
Zittel, K. A. 1890 A, p. 756, fig. 666 A.
 Jurassic; Colorado, Wyoming.

IGUANODONTIDÆ.

Andrews, C. W. 1897 A. (Iguanodon.)

Baur, G. 1883 A, p. 437.

1885 D. (Iguanodon.)

1891 D. (Iguanodon.)

Dollo L. 1882 B.

1882 C.

1883 A.

1883 B.

1883 C.

1883 D.

1884 B.

Fürbringer, M. 1900 A, p. 353.

Hulke, J. W. 1883 A.

1884 A.

1885 A.

Huxley, T. H. 1870 D.

Lydekker, R. 1888 B, p. 191.

1889 L.

Mantell, G. A. 1848 A. (Iguanodon.)

1848 B, p. 40. (Iguanodon.)

1849 A. (Iguanodon.)

Marsh, O. C. 1884 G.

1890 C, p. 425. (Claosauridæ.)

1896 B, p. 411, pl. viii. (Iguanodon.)

Marsh, O. C. 1896 C, p. 498. (Iguanodontidæ, Claosauridæ.)

1896 C, pp. 230, 244. (Iguanodontidæ, Claosauridæ.)

1896 D, p. 211. (Iguanodontidæ, Claosauridæ.)

Nicholson and Lydekker 1889 A, p. 1140.

Owen, R. 1842 A, p. 124. (Iguanodon.)

1845 B, p. 246. (Iguanodon.)

1851 B, p. 105. (Iguanodon.)

1857 B, p. 1. (Iguanodon.)

1860 B, p. 27. (Iguanodon.)

1864 B, p. 19. (Iguanodon.)

1872 A. (Iguanodon.)

1874 A. (Iguanodon.)

Pictet, F. J. 1853 A, p. 470. (Iguanodon.)

Quenstedt, F. A. 1885 A, p. 184. (Iguanodon.)

Sauvage, H. E. 1874 B, p. 12. (Iguanodon.)

Seeley, H. G. 1887 B.

1891 A, p. 253, fig. 15. (Iguanodon.)

Woodward, A. S. 1898 B, p. 205. (Iguanodon.)

Woodward, H. 1885 B. (Iguanodon.)

1896 A.

Zittel, K. A. 1890 A, p. 757.

THESPESIUS Leidy. Type *T. occidentalis* Leidy.

Leidy, J. 1856 Q, p. 311.

Cope, E. D. 1869 M, pp. 91, 98. (Syn. of Hadrosaurus.)

1871 G, p. 52.

Fürbringer, M. 1900 A, p. 350. (Claosaurus.)

Hatcher, J. B. 1900 A, p. 719.

Leidy, J. 1857 C.

1860 A, p. 151.

1865 A, p. 84.

1870 J, p. 67.

1874 A, p. 74.

Lucas, F. A. 1900 C, p. 809. (Thespesius.)

Marsh, O. C. 1890 C, p. 423. (Claosaurus, type *Hadrosaurus agilis* Marsh.)

1892 G, p. 171. (Claosaurus.)

1892 H. (Claosaurus.)

1893 B, p. 83. (Claosaurus.)

1893 F, p. 153. (Claosaurus.)

1895 C, p. 498. (Claosaurus.)

1896 C, p. 219. (Claosaurus.)

1896 D. (Claosaurus.)

1897 C, p. 516. (Claosaurus.)

Woodward, A. S. 1898 B, p. 208. (Claosaurus.)

Zittel, K. A. 1890 A, p. 763. (Claosaurus, *Thespesius*?)

The genus *Claosaurus* is identified with *Thespesius* on the authority of Mr. F. A. Lucas, of the U. S. National Museum.

***Thespesius agilis* (Marsh.)**

Marsh, O. C. 1872 D. (Hadrosaurus.)

Cope, E. D. 1874 C, p. 20. (Hadrosaurus.)

1875 E, p. 247. (Hadrosaurus.)

Marsh, O. C. 1877 C. (Hadrosaurus.)

1890 C, p. 423, fig. 3. (Claosaurus.)

1896 C, p. 219, fig. 55. (Claosaurus.)

Nopsch, F. B. 1899 A, p. 557. (Claosaurus.)

Williston, S. W. 1898 C, p. 69.

Zittel, K. A. 1890 A, p. 763, fig. 673. (Claosaurus.)
Cretaceous (Niobrara); Kansas.

***Thespesius occidentalis* Leidy.**

Leidy, J. 1856 Q, p. 311.

Cope, E. D. 1869 M, p. 98. (Hadrosaurus?)

1871 G, p. 51. (Hadrosaurus.)

1874 B, p. 446. (Hadrosaurus.)

1874 C, p. 20. (Hadrosaurus.)

1874 F, p. 10. (H. milo; no description.)

1874 R. (Hadrosaurus.)

1875 E, pp. 56, 248, pl. iii, figs. 5, 6 (Hadrosaurus); p. 58 (Agathaumilus milo a synonym).

Dana, J. D. 1896 A, p. 844, figs. 1408-1411. (Claosaurus annectens.)

Fürbringer, M. 1900 A, p. 351, figs. 123, 125, 128. (Claosaurus annectens.)

Hatcher, J. B. 1893 A, p. 143. (Claosaurus annectens.)

Leidy, J. 1857 C, p. 91.

1860 A, p. 151, pl. x, figs. 1-5. (Not figs. 6, 7, *vide* Leidy.)

1865 A, p. 84.

1870 J, pp. 67, 68.

Lucas, F. A. 1900 C, p. 809.

Marsh, O. C. 1892 E, p. 453, fig. 4. (Claosaurus annectens.)

1892 G, p. 171, pls. ii, iii. (C. annectens.)

1892 H, p. 344, pl. vi. (C. annectens.)

1893 B, p. 83, pls. iv, v. (C. annectens.)

1893 F, p. 155, pl. vii. (C. annectens.)

1894 E, pl. vii, fig. 5. (C. annectens.)

1895 C, pl. x, fig. 12. (C. annectens.)

1896 C, p. 219, pls. lxxii-lxxiv; pl. lxxv, fig. 4;

pl. lxxvi, fig. 2; pl. lxxvii, fig. 3; pl. lxxviii, fig. 2; pl. lxxix, fig. 5; pl. lxxx,

fig. 3. (C. annectens.)

- Marsh, O. C. 1896 D, pl. i, fig. 12. (C. annectens.)
1897 C, p. 517, pl. xxviii; text figs. 81, 82. (C. annectens.)
Nopcea, F. B. 1899 A. P. 556 (Hadrosaurus occidentalis): p. 557 (Claosaurus annectens.)
- Woodward, A. S. 1896 B, p. 209, fig. 128. (C. annectens.)
Cretaceous (Laramie); Wyoming, Colorado, South Dakota.

PTEROPELYX Cope. Type *P. grallipes* Cope.

- Cope, E. D. 1889 T, p. 904.
1892 T, p. 758. (Claosaurus a synonym.)
Marsh, O. C. 1892 H, p. 346.
1896 C, p. 224.

- Pteropelyx grallipes** Cope.
Cope, E. D. 1889 T, p. 904.
Cretaceous; (Laramie) Montana.

TRACHODONTIDÆ.

- Lydekker, R. 1888 B, p. 241. (Replacing Hadrosauridæ.)
Cope, E. D. 1869 M, p. 91. (Hadrosauridæ.)
1883 J. (Hadrosauridæ.)
1891 N, p. 43. (Hadrosauridæ.)
1898 R, p. 70. (Hadrosauridæ.)
Marsh, O. C. 1892 A, p. 84. (Hadrosauridæ.)
1884 G. (Hadrosauridæ.)
1885 D, p. 764. (Hadrosauridæ.)
- Marsh, O. C. 1890 C, p. 424.
1895 C, p. 498.
1896 C, p. 244.
1896 D, p. 211.
Nicholson and Lydekker 1889 A, p. 1153.
Nopcea, F. B. 1899 A. p. 556. ("Hadrosauriden").
Steinmann and Döderlein 1890 A, p. 667.
Zittel, K. A. 1890 A, p. 763. (Hadrosauridæ.)

TRACHODON Leidy. Type *T. mirabilis* Leidy.

- Leidy, J. 1856 F, p. 72.
Baur, G. 1898 A, p. 439. (Hadrosaurus.)
Cope, E. D. 1869 M, p. 91. (Hadrosaurus.)
1871 G, p. 52. (Thespesius.)
1874 B, p. 447. (Hadrosaurus.)
1874 C, p. 22. (Hadrosaurus.)
1875 E, p. 247. (Hadrosaurus.)
1876 H, p. 258. (Diclonius, type *D. pentagonus*.)
1877 V. (Diclonius.)
1888 J, p. 99. (Hadrosaurus.)
1888 CC. (Diclonius.)
1884 F. (Diclonius.)
1887 S, p. 338, pls. xv, xvi.
1889 E. (Hadrosaurus.)
1889 T, p. 904. (Diclonius.)
1898 B, p. 71. (Diclonius.)
Dollo, L. 1893 C, p. 211. (Hadrosaurus.)
1884 B, p. 137, pl. vi, fig. 2. (Diclonius.)
Foulke, W. P. 1858 A. (Hadrosaurus.)
Gadow, H. 1897 A, p. 206. (Hadrosaurus, Diclonius.)
Hawkins, B. W. 1874 A. (Hadrosaurus.)
1875 A. (Hadrosaurus.)
Leidy, J. 1856 C, p. 118. (Trachodon.)
1858 A, p. 215. (Hadrosaurus, type *H. fouldi*, Leidy.)
1859 A. (Hadrosaurus.)
1865 A, p. 84. (Trachodon, Hadrosaurus.)
1865 D, p. 71. (Hadrosaurus, Trachodon.)
1868 F, p. 199. (Trachodon, Hadrosaurus.)
1870 J, p. 67. (Hadrosaurus.)
Lippincott, J. S. 1881 A. (Hadrosaurus.)
Lydekker, R. 1886 C, p. 275, fig. 3. (Hadrosaurus.)
1888 B, p. 243. (Trachodon.)
Marsh, O. C. 1893 B, p. 85. (Hadrosaurus.)
1895 C, p. 498.
1896 C, p. 224.
Nicholson and Lydekker 1889 A, p. 1153. (Trachodon.)
- Nopcea, F. B. 1899 A, p. 555. (Hadrosaurus.)
Osborn, H. F. 1893 B, p. 326. (Diclonius.)
Owen, R. 1875 C, p. 74. (Hadrosaurus.)
Steinmann and Döderlein 1890 A, p. 667 (Hadrosaurus); p. 668 (Diclonius.)
Woodward, A. S. 1890 A, p. 393. (Hadrosaurus.)
Zittel, K. A. 1890 A, p. 763. (Hadrosaurus.)
- Trachodon breviceps** Marsh.
Marsh, O. C. 1889 C, p. 335, figs. 4, 5. (Hadrosaurus.)
Cope, E. D. 1889 T, p. 906. (Hadrosaurus.)
Hatcher, J. B. 1896 A, p. 116. (Hadrosaurus.)
Marsh, O. C. 1890 C, p. 423, figs. 1, 2. (Hadrosaurus.)
1896 C, pl. lxxxv, figs. 1, 2. (Trachodon.)
Nopcea, F. B. 1899 A, p. 557. (Hadrosaurus.)
Zittel, K. A. 1890 A, p. 765, fig. 676. (Hadrosaurus.)
Cretaceous (Laramie); Montana.
- Trachodon calamarius** (Cope).
Cope, E. D. 1876 H, p. 255. (Diclonius.)
1877 G, pp. 572, 588. (Diclonius.)
Cretaceous (Laramie); Montana.
- Trachodon cavatus** (Cope).
Cope, E. D. 1871 G, p. 50. (Hadrosaurus.)
1875 E, p. 248. (Hadrosaurus.)
Nopcea, F. B. 1899 A, p. 557. (Hadrosaurus.)
Cretaceous; New Jersey.
- Trachodon fouldii** Leidy.
Leidy, J. 1858 A. (Hadrosaurus.)
Cope, E. D. 1867 E, p. 27. (Hadrosaurus.)
1869 B, p. 736. (Hadrosaurus.)
1869 M, p. 98. (Hadrosaurus.)
1875 E, p. 247. (Hadrosaurus.)
Emmons, E. 1860 A, p. 208, fig. 180^a. (Hadrosaurus.)

- Leidy, J. 1859 A. (*Hadrosaurus*).
 1865 A, pp. 76, 118, pl. ii, figs. 9-11; pl. viii, fig. 13; pl. xii, figs. 1-20; pl. xiii, figs. 1-19, 24-26; pl. xiv, figs. 1-12; pl. xv, figs. 1-6; pl. xvi, figs. 1-8; pl. xvii, figs. 1-5; pl. xx, figs. 1, 2. (*Hadrosaurus*).
 1865 D, p. 70. (*Hadrosaurus*).
 1868 F, p. 199. (*Trachodon*).
 1870 J, p. 68. (*Hadrosaurus*).
 Lydekker, R. 1888 B, p. 224, fig. 50.
 Nicholson and Lydekker 1889 A, p. 1153, fig. 1058.
 Nopcea, F. B. 1899 A, p. 566. (*Hadrosaurus*).
 Zittel, K. A. 1890 A, p. 764, fig. 674.
 Cretaceous; New Jersey.

Trachodon longiceps Marsh.

- Marsh, O. C. 1890 C, p. 422.
 Nopcea, F. B. 1899 A, p. 567. (*Hadrosaurus*).
 Cretaceous (Laramie); Wyoming.

Trachodon minor (Marsh).

- Marsh, O. C. 1870 F. (*Hadrosaurus*).
 Cope, E. D. 1869 M (1870), p. 122 J. (*Hadrosaurus*).
 1875 E, p. 247. (*Hadrosaurus*).
 Leidy, J. 1870 J, p. 68.
 Nopcea, F. B. 1899 A, p. 567. (*Hadrosaurus*).
 Cretaceous; New Jersey.

Trachodon mirabilis Leidy.

- Leidy, J. 1856 F, p. 72.
 Cope, E. D. 1869 M, p. 98. (*Hadrosaurus*).
 1874 C, pp. 8, 19. (*Hadrosaurus*).
 1875 E, pp. 56, 247. (*Hadrosaurus*).
 1877 G, p. 573. (*Trachodon*).
 1883 C. (*Diclonius*).
 1883 J. pls. iv-vii. (*Diclonius*).
 1883 CC. (*Diclonius*).
 1884 F. (*Diclonius*).
 1886 R, pl. xxxvii, figs. 1-8. (*Diclonius*).

- Cope, E. D. 1886 E, fig. 1. (*Diclonius*).
 1891 N, p. 44, fig. 22. (*Diclonius*).
 1898 B, p. 71, fig. 23. (*Diclonius*).
 Lambe, L. M. 1899 A, p. 69.
 Leidy, J. 1866 C, p. 118.
 1860 A, p. 140, pl. ix, figs. 1-20.
 1870 J, p. 68. (*Hadrosaurus*).
 Marsh, O. C. 1892 H, p. 344. (*Hadrosaurus*).
 Nopcea, F. B. 1899 A, p. 566. (*Hadrosaurus*).
 Osborn, H. F. 1898 N, pp. 842, 844, fig. 2. (*Hadrosaurus*).
 1898 Q, p. 6, pl. i, fig. 2. (*Hadrosaurus*).
 Zittel, K. A. 1890 A, p. 764, fig. 675. [*Hadrosaurus* (*Diclonius*)].
 Cretaceous (Laramie); Montana, British America.

Trachodon pentagonus (Cope).

- Cope, E. D. 1876 H, p. 253. (*Diclonius*).
 1877 G, pp. 572, 594. (*Diclonius*).
 1888 T, p. 906. (*Diclonius*).
 Cretaceous (Laramie); Montana.

Trachodon perangulatus (Cope).

- Cope, E. D. 1876 H, p. 254. (*Diclonius*).
 1877 G, pp. 572, 583. (*Diclonius*).
 Cretaceous (Laramie); Montana.

Trachodon tripes (Cope).

- Cope, E. D. 1869 I. (*Hadrosaurus*).
 1869 M, p. 122 I. (*Hadrosaurus*).
 1870 J, p. 68. (*Hadrosaurus*).
 1871 M, p. 214. (*Hadrosaurus*).
 1875 E, p. 247. (*Hadrosaurus*).
 1875 V, p. 40, pl. v, figs. 1, 2. (*Hadrosaurus*).
 1878 EE. (*Hadrosaurus*).
 Leidy, J. 1870 J, p. 68. (*Hadrosaurus*).
 Nopcea, F. B. 1899 A, p. 567. (*Hadrosaurus*).
 Cretaceous; North Carolina, Georgia.

CIONODON Cope. Type *C. arctatus* Cope.

- Cope, E. D. 1874 P, p. 10. (*Cionodon, error typog.*)
 1874 B, p. 447.
 1874 C, p. 21.
 1875 E, pp. 57, 246.
 1875 W, p. 334.
 1876 H, p. 253.
 1877 V.
 1883 J, p. 99.
 Lydekker, R. 1886 C, p. 276.
 Marsh, O. C. 1896 C, p. 498.
 Steinmann and Döderlein 1890 A, p. 667.
 Zittel, K. A. 1890 A, p. 765.
Cionodon arctatus Cope.
 Cope, E. D. 1874 P, p. 10.

- Cope, E. D. 1874 B, pp. 448, 449.
 1874 C, p. 22.
 1874 F.
 1875 E, pp. 60, 246, pls. i, ii.
 1877 G, p. 597.
 Nopcea, F. B. 1899 A, p. 567.
 Cretaceous (Laramie); Colorado.
Cionodon stenopsis Cope.
 Cope, E. D. 1875 I.
 1875 E, pp. 63, 247.
 1875 W, p. 335.
 Nopcea, F. B. 1899 A, p. 567.
 Cretaceous (Laramie); Saskatchewan.

DYSGANUS Cope. Type *D. encastus* Cope.

- Cope, E. D. 1876 H, p. 250.
 1883 J, p. 99.
 1890 D.
 Zittel, K. A. 1890 A, p. 765.
 A genus of uncertain affinities.

Dysganus bicarinatus Cope.

- Cope, E. D. 1876 H, p. 252.
 1877 G, p. 572.
 Cretaceous (Laramie); Montana.

Dysganus encaustus Cope.

Cope, E. D. 1876 H, p. 250.

1877 G, p. 572.

Cretaceous (Laramie); Montana.

Dysganus haydenianus Cope.

Cope, E. D. 1876 H, p. 251.

Cope, E. D. 1877 G, pp. 572, 596.

Cretaceous (Laramie); Montana.

Dysganus peiganus Cope.

Cope, E. D. 1876 H, p. 252.

1877 G, p. 572.

Cretaceous (Laramie); Montana.

ORNITHOTARSUS Cope. Type *O. immanis* Cope.

Cope, E. D. 1869 H, p. 123.

1869 M, p. 120.

1883 J, p. 99.

Morse, E. S. 1880 A, p. 7.

Zittel, K. A. 1890 A, p. 765.

Ornithotarsus immanis Cope.

Cope, E. D. 1869 H, p. 123.

Cope, E. D. 1869 D.

1869 M, p. 121, figs. 35-36a.

1875 E, p. 248.

1885 R.

Nopcea, F. B. 1899 A, p. 577.

Cretaceous; New Jersey.

PNEUMATOARTHUS Cope. Type *P. peloreus* Cope.

Cope, E. D. 1870 I, p. 446.

1875 E, p. 260. (Pneumatarthrus.)

1878 I, p. 236. (Pneumatarthrus.)

Zittel, K. A. 1890 A, p. 765. (Syn.? of Ornithotarsus.)

Pneumatarthrus peloreus Cope.

Cope, E. D. 1870 I, p. 446.

Cope, E. D. 1872 L, p. 433. (Pneumatarthrus.)

1875 E, p. 260. (Pneumatarthrus.)

Leidy, J. 1865 A, p. 100, pl. xiii, figs. 27, 28. (Young? of Hadrosaurus.)

Cretaceous; New Jersey.

NANOSAURIDÆ.

Marsh, O. C. 1878 B, p. 244.

1895 C, p. 498.

1896 C, p. 244.

Marsh, O. C. 1896 D, p. 211.

Zittel, K. A. 1890 A, p. 766.

NANOSAURUS Marsh. Type *N. agilis* Marsh.

Marsh, O. C. 1877 D, p. 254.

1891 F, p. 337.

1894 E, p. 87.

1895 C, p. 498.

1896 C, pp. 199, 201, 202.

1897 C, p. 483.

Nicholson and Lydekker 1889 A, p. 1069.

Steinmann and Döderlein 1890 A, p. 624.

Williston, S. W. 1878 A, p. 45.

Zittel, K. A. 1890 A, p. 766.

Nanosaurus agilis Marsh.

Marsh, O. C. 1877 D, p. 254.

King, C. 1878 A, p. 346.

Marsh, O. C. 1894 E, pl. vi, fig. 3.

1896 C, p. 199, text figs. 42, 43.

1897 C, p. 484, figs. 27, 28.

Jurassic; Colorado.

Nanosaurus rex Marsh.

Marsh, O. C. 1877 G, p. 516.

King, C. 1878 A, p. 346.

Marsh, O. C. 1894 E, p. 88, pl. vi, fig. 5.

1896 C, p. 200, text figs. 44-48.

1897 C, p. 484, fig. 29.

Jurassic; Colorado.

MACELOGNATHIDÆ.

Marsh, O. C. 1884 C, p. 341.

Woodward, A. S. 1887 C, p. 8.

MACELOGNATHUS Marsh. Type *M. vagans* Marsh.

Marsh, O. C. 1884 C, p. 341.

Amer. Geologist, 1891 D.

Baur, G. 1891 D, p. 450. (Cœlurus.)

Marsh, O. C. 1897 C, p. 508.

Nicholson and Lydekker 1889 A, p. 1089.

Zittel, K. A. 1890 A, p. 513.

For this genus Professor Marsh has established the family *Macelognathidae* and the order*Macelognatha*, and assigned them a place among the *Testudinata*. The relationships of the fossils are problematical.**Macelognathus vagans** Marsh.

Marsh, O. C. 1884 C, p. 341, figure.

1897 C, p. 507, figs. 65, 66.

Jurassic; Wyoming.

APATODON Marsh. Type *A. mirus* Marsh.

Marsh, O. C. 1877 D, p. 255.

Baur, G. 1890 C, p. 301.

A doubtful genus of doubtful position.

Apatodon mirus Marsh.

Marsh, O. C. 1877 D, p. 255.

Jurassic; Rocky Mountain region.

BRACHYROPHUS Cope. Type *B. altarkansanus* Cope.

Cope, E. D. 1878 H, p. 390.

Even the ordinal portion of this genus is doubtful.

Brachyrophus altarkansanus Cope.

Cope, E. D. 1878 H, p. 390.

Jurassic; Colorado.

Order PTEROSAURI Kaup.

Kaup, J. 1834, Isis, p. 315.

Baur, G. 1887 A, p. 487. (Ornithosauria.)

1887 C, p. 101. (Ornithosauria.)

1889 G. (Pterosauria.)

1891 C, p. 355. (Pterosauria.)

Blainville, H. M. D., 1835, Nouv. Ann. Mus., iv, p. 238. (Pterodactylia.)

Bonaparte, C. L., 1838, Nuovi Ann. Sci. Nat. Bologna, i, p. 391. (Ornithosauri.)

Cope, E. D. 1869 M, pp. 26, 28, 169, and II. (Pterosauria.)

1871 B, p. 234. (Ornithosauria.)

1885 G, p. 246. (Ornithosauria.)

1887 S, p. 333. (Ornithosauria.)

1889 R, p. 863. (Ornithosauria.)

1891 N, p. 41. (Ornithosauria.)

1892 R. (Pterosauria.)

1898 B, pp. 56, 67. (Ornithosauria.)

1900 A, p. 160. (Ornithosauria.)

Fürbringer, M. 1900 A, pp. 355, 527, 660. (Patagiosauria.)

Gadow, H. 1898 A, p. 23. (Pterosauria.)

Gaudry, A. 1890 C, p. 235.

Günther, A. 1886 A, p. 443. (Ornithosauria.)

Haeckel, E. 1895 A, p. 390. (Pterosauria.)

Hawkins, B. W. 1874 A. (Ornithosauria.)

Hay, O. P. 1899 F, p. 682.

Huxley, T. H. 1872 A, p. 228. (Pterosauria.)

Kehner, F. A. 1876 A. (Pterosauria.)

Lortet, L. 1892 A, p. 128. (Pterosauria.)

Lydekker, R. 1888 B, p. 2 (Ornithosauria); p. 3 (Pteranodontia, Pterosauria.)

Marsh, O. C. 1876 E. (>Pteranodontia.)

1876 G. (>Pteranodontia.)

1876 I. (>Pteranodontia.)

1877 E. (Pterosauria, Pteranodontia.)

1881 D. (>Pteranodontia.)

1882 B. (Pterosauria, Pteranodontia.)

1884 D. (Pterosauria, Pteranodontia.)

Meyer, H. 1851 A. (Pterosauria.)

1860 A. (Pterosauria.)

1860 D. (Pterosauria.)

Newton, E. T. 1888 A. (Ornithosauria.)

1889 B. (Ornithosauria.)

Nicholson and Lydekker 1889 A, p. 1196 (Ornithosauria); p. 1198 (Pteranodontia); p. 1199 (Pterosauria.)

Owen, R. 1840. (Pterosauria.)

1851 A. (Pterosauria.)

1859 A. (Pterosauria.)

1859 B. (Pterosauria.)

1860 A, p. 162. (Pterosauria.)

1860 B. (Pterosauria.)

1860 C. (Pterosauria.)

1860 E, p. 244. (Pterosauria.)

1866 A. (Pterosauria.)

1870 A. (Pterosauria.)

1874 B. (Pterosauria.)

Pictet, F. J. 1853 A, p. 522. ("Pterodactyliens.")

Plieninger, F. 1895 A. (Pterosauria.)

Quenstedt, F. A. 1852 A, p. 135. (Pterodactyl.)

1885 A, p. 219. Pterosauri.)

Seeley, H. G. 1865 A. (Saurornia.)

1866 A. (Saurornia.)

1870 A, p. 151. (Ornithosauria.)

1870 B. (Ornithosauria.)

1871 C. (Ornithosauria.)

1876 A. (Ornithosauria.)

1891 A. (Ornithosauria.)

1891 B. (Ornithosauria.)

Steinmann and Döderlein, 1890 A, p. 647. (Pterosauria.)

Williston, S. W. 1892 A. (Pterosauria.)

1897 A. (Pterosauria.)

Woodward, A. S. 1898 B, p. 224. (Ornithosauria.)

Woodward, H. 1871 A. (Ornithosauria.)

Zittel, K. A. 1882 A. (Pterosauria.)

1890 A, pp. 450, 773, 779. (Pterosauria.)

ORNITHOCEPHALIDÆ nom. nov.

This family, unless otherwise indicated, is denominated by the following authors *Pterodactylidæ*.

Bowerbank, J. S. 1851 A.

Cope, E. D. 1893 F.

Fürbringer, M. 1900 A.

Haeckel, E. 1895 A, p. 397. (Pterodactylida.)

Huxley, T. H. 1876 B, xiii, p. 515.

Lydekker, R. 1888 B, p. 3.

Nicholson and Lydekker 1889 A, p. 1199.

Owen, R. 1851 A.

Owen, R. 1859 A.

1859 D.

1860 B.

Quenstedt, F. A. 1885 A, p. 219.

Seeley, H. G. 1866 A.

1870 B, p. 111. (Pterodactylæ.)

1876 A.

Steinmann and Döderlein 1890 A, p. 650.

Williston, S. W. 1892 A, p. 12. (Pterodactylina.)

1897 A.

Zittel, K. A. 1890 A, p. 791.

ORNITHOCEPHALUS Sömm. Type *O. antiquus* Sömm.

Sömmering, S. T., 1812, Denkschr. k. Akad. München, iii, p. 126.

Unless otherwise indicated the following authors refer to this genus under the name *Pterodactylus*. The latter name is usually credited to Cuvier, 1809, Ann. Mus., xiii, p. 424. There, however, we find only the French term *Ptero-dactyle*. Even in case this is a misprint for *Pterodactyle*, it is inadmissible as a generic name. *Pterodactylus* appears to have been used first in 1824 by Cuvier.

Bowerbank, J. S. 1848 A.

1851 A.

Cope, E. D. 1872 F, p. 337. (Ornithochirus, not of Seeley.)

1879 A, p. 35.

1893 F.

Cuvier, G. 1834 A, x, pp. 215-263, pl. ccll.

Dennis, J. B. P. 1861 A.

Hallmann, E. 1837 A, p. 20.

Huxley, T. H. 1872 A, p. 228.

Lortet, L. 1888 B, p. 4.

Lydekker, R. 1888 B, p. 4.

Meyer, H. 1860 D, p. 85.

1861 B.

Newton, E. T. 1888 A.

Nicholson and Lydekker 1889 A, p. 1200.

Owen, R. 1845 B, p. 273, pl. lxiii A.

1851 A.

1851 B, p. 80.

1859 B.

1859 D, p. 1.

1860 A, p. 163.

1860 B, p. 1.

1860 C.

1870 A.

1874 B.

Pictet, F. J. 1853 A, p. 524.

Quenstedt, F. A. 1858 A.

Seeley, H. G. 1865 A.

1870 A.

1870 B, p. 111.

1871 C.

1876 A.

1891 A.

Steinmann and Döderlein 1890 A, p. 650.

Wagner, A. 1851 B, p. 180. (Ornithocephalus.)

Winckler, T. C. 1874 A.

Zittel, K. A. 1890 A, p. 771.

At present no American species is assigned to this genus.

DERMODACTYLUS Marsh. Type *Pterodactylus montanus* Marsh.

Marsh, O. C. 1881 D, p. 342.

Nicholson and Lydekker 1889 A, p. 1201.

Zittel, K. A. 1890 A, p. 798.

The relationships of this genus are somewhat obscure.

***Dermodactylus montanus* Marsh.**

Marsh, O. C. 1878 E, p. 233. (Pterodactylus.)

1881 D.

1897 C, p. 506.

Jurassic; Wyoming.

PTERANODONTIDÆ.

Marsh, O. C. 1876 E, p. 507.

Cope, E. D. 1898 B, p. 67.

Fürbringer, M. 1888 A.

1900 A.

Marsh, O. C. 1884 D.

1897 C, p. 509. (Pteranodontia.)

Nicholson and Lydekker 1890 A, p. 1199.

Steinmann and Döderlein 1890 A, p. 650.

Williston, S. W. 1892 A. (Pteranodontinæ.)

1893 B. (Ornithostomatidæ.)

1897 A, p. 36. (Ornithostomatinae.)

Zittel, K. A. 1890 A, p. 798.

PTERANODON Marsh. Type *P. longiceps* Marsh.

Marsh, O. C. 1876 E, p. 507.

Since the question of the identity of *Pteranodon* Marsh and *Ornithostoma* Seeley has been raised, references to the literature of the latter genus are here included.

Cope, E. D. 1893 F.

Grinnell, G. B. 1881 A, p. 257.

Marsh, O. C. 1876 G, p. 59.

1876 I.

1881 D.

1882 B, p. 253.

1884 D.

1897 C, p. 509.

Newton, E. T. 1888 A, p. 418 (Ornithostoma); p. 419 (Pteranodon).

Nicholson and Lydekker 1889 A, p. 1199.

Seeley, H. G. 1871 C, p. 35. (Ornithostoma.)

Seeley, H. G. 1876 B, p. 499. (Ornithostoma.)

1891 B, p. 442. (Ornithostoma.)

Steinmann and Döderlein 1890 A, p. 651.

Williston, S. W. 1891 B.

1892 A, pp. 1, 3, pl. 1.

1893 B. (Ornithostoma.)

1896 B. (Ornithostoma.)

1896 B, pl. 1. (Ornithostoma)

1897 A. (Ornithostoma.)

Woodward, A. S. 1898 B, p. 229.

Zittel, K. A. 1890 A, p. 799.

***Pteranodon comptus* Marsh.**

Marsh, O. C. 1876 E, p. 509.

Williston, S. W. 1892 A, p. 2.

Cretaceous (Niobrara); Kansas.

Pteranodon ingens Marsh.

- Marsh, O. C. 1872 B, p. 246. (Pterodactylus.)
 Amer. Naturalist, 1872 A. (Pterodactylus.)
 Cope, E. D. 1872 F, p. 337. (Ornithochirus umbrosus.)
 1872 K, p. 42. (Ornithochirus umbrosus.)
 1874 C, p. 26. (Pterodactylus umbrosus, P. ingens.)
 1875 E, p. 249 (Pterodactylus ingens); pp. 48, 65, 247, pl. vii, figs. 1-4 (P. umbrosus).
 Marsh, O. C. 1872 S, p. 578. (Pterodactylus.)
 1872 T, p. 496. (Pterodactylus.)
 1876 E, p. 508.
 1876 I, p. 480.
 1884 D, p. 426.
 Williston, S. W. 1891 B, p. 1124. (P. umbrosus.)
 1892 A, p. 2. (P. ingens; P. umbrosus.)
 1893 B, figure. (Ornithostoma.)
 1897 A, pl. II, text figs. 1, 2. (Ornithostoma.)
 1897 H, p. 245. (Ornithostoma.)
 Cretaceous (Niobrara); Kansas.

Pteranodon longiceps Marsh.

- Marsh, O. C. 1876 E, p. 598.
 Lydekker, R. 1888 B, p. 3, fig. 1.
 Marsh, O. C. 1876 I, p. 480.
 1884 D, pl. xv.
 1897 C, p. 510, figs. 71-74.
 Williston, S. W. 1891 B, p. 1124.
 1892 A, p. 2.
 Woodward, A. S. 1896 B, p. 229, fig. 140.
 Zittel, K. A. 1890 A, p. 799, fig. 694.
 Cretaceous; Kansas.

Pteranodon nanus Marsh.

- Marsh, O. C. 1881 D, p. 343.
 Williston, S. W. 1892 A, p. 2.
 Cretaceous; Kansas.

Pteranodon occidentalis Marsh.

- Marsh, O. C. 1872 B, p. 241. (Pterodactylus.)
 Cope, E. D. 1871 C. (Pterodactylus owenii Marsh, not of Seeley.)
 1872 F, p. 337. (Ornithochirus harpygia.)
 1872 K, p. 471. (Ornithochirus harpygia.)
 1874 C, p. 26. (Pterodactylus.)
 1875 E, pp. 48, 66, 249, pl. vii, figs. 5, 6. (Pterodactylus.)
 Marsh, O. C. 1871 C, p. 472. (Pterodactylus owenii.)
 1872 S, p. 578. (Pterodactylus.)
 1872 T, p. 496. (Pterodactylus.)
 1876 E, p. 508.
 1884 D, p. 423.
 1897 C, p. 527.
 Williston, S. W. 1892 A, p. 1.
 Cretaceous (Niobrara); Kansas.

Pteranodon velox Marsh.

- Marsh, O. C. 1872 B, p. 247. (Pterodactylus.)
 Cope, E. D. 1874 C, p. 26. (Pterodactylus.)
 1875 E, p. 250. (Pterodactylus.)
 Marsh, O. C. 1872 T, p. 496. (Pterodactylus.)
 1876 I, p. 480.
 Williston, S. W. 1892 A, p. 2.
 Cretaceous (Niobrara); Kansas.

NYCTOSAURIDÆ.

Nicholson and Lydekker 1889 A, p. 1199. (Family suggested.)

Williston, S. W. 1897 A, p. 36. (Nyctodactylinae.)

NYCTOSAURUS Marsh. Type *Pteranodon gracilis* Marsh.

- Marsh, O. C. 1876 I, p. 480.
 Cope, E. D. 1893 F. (Nyctodactylus.)
 Marsh, O. C. 1881 D, p. 343. (Nyctodactylus, to replace Nyctosaurus.)
 Newton, E. T. 1888 A, p. 420. (Nyctodactylus.)
 Nicholson and Lydekker 1889 A, p. 1199. (Nyctodactylus.)
 Williston, S. W. 1892 A, p. 2. (Nyctodactylus.)
 1897 A, p. 39. (Nyctodactylus.)

- Williston, S. W. 1897 H, p. 245. (Nyctodactylus.)
 Zittel, K. A. 1890 A, p. 799. (Nyctodactylus.)

Nyctosaurus gracilis Marsh.

- Marsh, O. C. 1876 E, p. 508. (Pteranodon.)
 1876 I, p. 480.
 1881 D, p. 343. (Nyctodactylus.)
 Williston, S. W. 1892 A, pp. 3, 5. (Nyctodactylus.)
 Cretaceous; Kansas.

Order LORICATA Merrem.

Merrem, B., 1820, Tentamen Syst. Amphib., p. 7.
 Unless otherwise indicated the following authorities apply the name *Crocodylia* to this group.

- Baur, G. 1885 E, p. 633.
 1886 G, pp. 689, 738.
 1886 J.
 1887 A, p. 487.
 1887 C, p. 101.
 1889 C, p. 240.
 1891 C, p. 355.
 1894 A, p. 323.
 1896 D.

- Boulenger, G. A. 1889 A, p. 273. (Emydosauria.)
 1896 B.
 Burckhardt, R. 1896 A.
 Cope, E. D. 1869 M, pp. 32, 61.
 1871 B.
 1889 B, p. 863.
 1891 N, p. 45.
 1892 R.
 1898 B, pp. 56, 73. (Loricata.)
 1900 A, p. 161. (Loricata.)
 Cuvier, G. 1829 A, ix, pp. 25-344, pls. ccxxix-ccxxxviii.
 Delongchamps-Eudes, E. 1870 A.

Dollo, L. 1883 E.
 Fürbringer, M. 1888 A.
 1900 A, pp. 297, 527, 596, 649.
 Gadow, H. 1896 A, p. 38.
 1896 A, p. 13.
 Gaupp, E. 1895 B.
 Gegenbaur, C. 1864 A, pp. 32, 87.
 1865 B, p. 32.
 Günther, A. 1886 A, p. 444.
 Haeckel, E. 1895, p. 358.
 Hallmann, E. 1837 A, p. 16.
 Hay, O. P. 1899 F, p. 682. (Loricata.)
 Hoffmann, C. K. 1876 A.
 1878 A.
 1879 A, p. 102.
 1890 B.
 Hulke, J. W. 1888 A.
 Huxley, T. H. 1869 B.
 1870 A, p. 440.
 1872 A, p. 214.
 1875 B.
 1876 B, xiii, pp. 430, 467, 514.
 Kehner, F. A. 1876 A.
 Koken, E. 1883 A, p. 792.
 1887 A, p. 84.
 1888 B.
 Kükenthal, W. 1893 A.
 Leidy, J. 1871 C, p. 367.
 Lortet, L. 1892 A, p. 91.
 Ludwig, R. 1877 A.
 Lydekker, R. 1888 B, p. 42.

Lydekker, R. 1898 E, p. 139.
 Marsh, O. C. 1877 E.
 1886 D.
 Mivart, St. G. 1886 A.
 Müller, J. 1831 A, pp. 199, 238.
 Nicholson and Lydekker 1889 A, p. 1180.
 Owen, R. 1842 A, p. 65.
 1845 B, p. 235.
 1850 A.
 1850 B, p. 521.
 1860 A, p. 164.
 1860 E, p. 271.
 1866 A.
 1878 A.
 1879 A.
 Parker, W. K. 1868 A, p. 126.
 1879 B, p. 81.
 1883 A.
 Pictet, F. J. 1853 A, p. 476. ("Crocodillens.")
 Röse, C. 1893 B.
 1896 A.
 Seeley, H. G. 1888 H, p. 181.
 Stannius, H. 1856 A.
 Steinmann and Döderlein 1890 A, p. 651.
 Tomes, C. S. 1898 A, p. 268.
 Tornier, G. 1888 A.
 Wiedersheim, R. 1889 A, p. 438.
 Woodward, A. S. 1886 D.
 1896 B, p. 216.
 Zittel, K. A. 1890 A, pp. 450, 633, 647, 683.

Suborder PARASUCHIA Huxley.

Huxley, T. H. 1875 B, p. 427.
 Baur, G. 1894 A, p. 123. (Phytosauria.)
 Cope, E. D. 1869 M, pp. 32, 56. (Thecodontia.)
 1899 R, p. 865.
 1900 A, p. 161.
 Fürbringer, M. 1900 A, p. 302.
 Gadow, H. 1896 A, p. 19.
 Haeckel, E. 1896 A, p. 364.
 Koken, E. 1887 A, p. 98.
 1888 B, p. 763.

Lydekker, R. 1888 B, p. 123.
 1890 A, p. 235.
 Marsh, O. C. 1895 C, p. 485.
 1896 B, p. 59. (Belodontia.)
 1896 D, p. 199. (Belodontia.)
 Owen, R. 1860 A, p. 163. (Thecodontia.)
 Woodward, A. S. 1896 B, p. 217.
 Zittel, K. A. 1890 A, p. 637.

PHYTOSAURIDÆ.

Lydekker, R. 1888 B, p. 123.
 Baur, G. 1886 G, p. 740. (Belodontidæ.)
 1887 A, p. 487. (Belodontidæ.)
 1887 C, p. 102. (Belodontidæ.)

Cope, E. D. 1898 B, p. 73. (Belodontidæ.)
 Nicholson and Lydekker 1889 A, p. 1183. (Phytosauridæ.)

PHYTOSAURUS Jaeger. Type *P. cylindricodon* Jaeger.

Jaeger, G. F. 1828 A, p. 22.
 Baur, G. 1886 G, p. 740. (Belodon.)
 1887 A, p. 487. (Belodon.)
 1894 A. (Phytosaurus.)
 Cope, E. D. 1866 D. (Rhytidodon, emendation of Rutodon.)
 1869 M, p. 56. (Belodon.)
 1870 I, p. 444. (Belodon.)
 1879 A, p. 34. (Belodon.)
 1888 U, p. 916. (Belodon.)
 1889 E. (Belodon.)
 Emmons, E. 1856 A, p. 30. (Rutodon, type *R. carolinensis*.)

Fürbringer, M. 1900 A, p. 302.
 Huxley, T. H. 1869 A.
 1875 B.
 Koken, E. 1887 A, p. 96.
 1888 B, p. 764.
 Lea, I. 1856 B, p. 123. (Centemodon.)
 1856 A, p. 78. (Centemodon, type *C. sulcatus*.)
 Leidy, J. 1856 J, p. 165. (Compsosaurus, type *C. priscus*.)
 1856 L, p. 256. (Omosaurus, type *O. perplecius*.)
 Lydekker, R. 1888 B, p. 123.

- Lydekker, R. 1890 A, p. 235.
 Marsh, O. C. 1877 E. (Belodon.)
 1895 C, p. 485. (Belodon.)
 1896 B, p. 61. (Belodon; Rhytidodon.)
 1896 D, p. 199. (Belodon.)
 Meyer, H. 1842, Neues Jahrb. Mineral., p. 302.
 (Belodon, type *B. plieningeri* Meyer.)
 1855 A, p. 148. (Belodon.)
 1861 A, pls. xxxviii-xlvii. (Belodon.)
 1863 A, pls. xxxviii-xliii. (Belodon.)
 1865 B, pls. xxlii-xxix. (Belodon.)
 Nicholson and Lydekker 1889 A, p. 1183.
 Pictet, F. J. 1853 A, p. 514.
 Plieninger, Th. 1852 A. (Belodon.)
 Quenstedt, F. A. 1850 B, p. 23.
 1852 A, p. 110. (Belodon.)
 Steinmann and Döderlein 1890 A, p. 652. (Belodon.)
 Woodward, A. S. 1896 D, p. 300, fig. 5.
 1898 B, p. 218. (Belodon.)
 Zittel, K. A. 1890 A, p. 638. (Belodon.)
- Phytosaurus buceros (Cope).**
 Cope, E. D. 1881 W, p. 922. (Belodon.)
 1887 A, p. 217, pl. ii. (Belodon.)
 1887 J. (Belodon.)
 1888 U, p. 916, pl. xvii, fig. 1. (Belodon.)
 1891 N, p. 46, fig. 23. (Belodon.)
 1898 B, p. 72, fig. 24. (Belodon.)
 Triassic; New Mexico.

Phytosaurus carolinensis (Emmons).

- Emmons, E. 1856 A, p. 307, fig. 22; pl. viii, fig. 1. (Rutlodon.)
 Cope, E. D. 1866 D. (Rhytidodon=Belodon.)
 1869 M, pp. 25, 59. (Belodon.)
 1870 I, p. 444. (Belodon.)
 1871 M, p. 210. (Belodon.)
 1875 V, p. 34. (Belodon.)
 1877 E, p. 185. (Belodon.)
 Dana, J. D. 1896 A, p. 754, fig. 1183. (Belodon.)
 Emmons, E. 1856 A, p. 308 (Rutlodon, or Clepsosaurus, carolinensis); p. 318, figures (Paleosaurus sulcatus).
 1857 A, p. 82, figs. 52-56. (Rutlodon.)
 1858 A, p. 78. (Rutlodon.)
 1860 A, p. 175, figs. 157, 160. (Rutlodon.)
 Lea, I. 1856 B, p. 123. (Centemodon sulcatus.)
 1856 A, p. 78. (Centemodon sulcatus.)
 Leidy, J. 1856 L, p. 256. (Omosaurus perplexus.)
 1857 A, p. 272. (Omosaurus perplexus.)
 Marsh, O. C. 1896 B, p. 60. (Rhytidodon.)
 Wheatley, C. M. 1861 A, p. 44. (Centemodon sulcatus.)
 Triassic; North Carolina.
- Phytosaurus leai (Emmons).**
 Emmons, E. 1856 A, p. 299. (Clepsosaurus.)
 Cope, E. D. 1869 M, p. 59. (Belodon.)
 1870 I, p. 444. (Belodon.)

- Cope, E. D. 1871 M. ("Clepsosaurus.")
 1875 V, p. 35. (Belodon.)
 Emmons, E. 1857 A, p. 79, text fig. 51; pl. x. (Clepsosaurus.)
 Triassic; North Carolina.

Phytosaurus lepturus (Cope).

- Cope, E. D. 1869 M, p. 59, pl. xiv, figs. 1-14. (Belodon.)
 1870 I, p. 444.
 1870 S, p. 563.
 Triassic; Pennsylvania.

Phytosaurus priscus (Leidy).

- Leidy, J. 1856 J, p. 165. (Comptosaurus.)
 Dana, J. D. 1896 A, p. 754, fig. 1182. (Belodon.)
 Cope, E. D. 1869 M, p. 59, pl. xiv, figs. 15-25. (Belodon.)
 1870 I, p. 444. (Belodon.)
 1871 M, p. 210. (Belodon.)
 1875 V, p. 34, pl. viii, fig. 5. (Belodon.)
 1877 E, p. 185. (Belodon.)
 Emmons, E. 1856 A, p. 299 (Clepsosaurus pennsylvanicus, in part); p. 318, figures (Palæosaurus carolinensis).
 1857 A, pp. 65-79, figs. 37-50 (Clepsosaurus pennsylvanicus, in part); p. 86, figs. 57, 58, 60 (Palæosaurus carolinensis).
 Hilla, R. C. 1890 A. (Belodon.)
 Leidy, J. 1856 L, p. 255. (Palæosaurus.)
 1857 A, p. 271. (Palæosaurus.)
 Triassic; North Carolina.

Phytosaurus rostratus (Marsh).

- Marsh, O. C. 1896 B, p. 61, fig. 2. (Rhytidodon.)
 1900 A, p. 23. (Rhytidodon.)
 Triassic; North Carolina.

Phytosaurus scolopax (Cope).

- Cope, E. D. 1881 W, p. 923. (Belodon.)
 1887 A, p. 221. (Belodon.)
 Triassic; New Mexico.

Phytosaurus serridens (Leidy).

- Leidy, J. 1856 E. (Eurydorus.)
 Cope, E. D. 1866 D, p. 249. (Belodon.)
 1869 M, pp. 57, 58. (Belodon.)
 Wheatley, C. M. 1861 A, p. 44. (Eurydorus.)
 Triassic; Pennsylvania.

Phytosaurus superciliosus (Cope).

- Cope, E. D. 1893 A, p. 12, pl. i, figs. 1-10. (Belodon.)
 Triassic; Texas.

Phytosaurus validus (Marsh).

- Marsh, O. C. 1893 G, p. 170. (Belodon. No description.)
 1896 B, p. 59. (No description.)
 Triassic; Connecticut.

EPISCOPOSAURUS Cope. Type *E. horridus* Cope.

Cope, *E. D.* 1887 A, p. 213.
1896 I, p. 123.

Marsh, O. C. 1896 B, p. 62.

Nicholson and Lydekker 1889 A, p. 1184.

Zittel, K. A. 1890 A, p. 644.

Episcoposaurus haplocerus Cope.

Cope, *E. D.* 1892 J, p. 129.

Cope, *E. D.* 1892 E, p. 257.
Triassic; Texas.

Episcoposaurus horridus Cope.

Cope, *E. D.* 1887 A, p. 213.

1892 E, p. 257.

Triassic; New Mexico.

Suborder AETOSAURIA Nich. and Lydek.

Nicholson and Lydekker 1889 A, p. 1182.

Baur, G. 1894 A, p. 323.

Cope, *E. D.* 1896 B, p. 73. (Pseudosuchia.)

Fraas, O. 1867 A. (Genus *Dyoplax*.)

Fürbringer, M. 1900 A, p. 306. (Pseudosuchia.)

Gadow, H. 1898 A, p. 19. (Pseudosuchia.)

Haeckel, E. 1895 A, p. 364.

Marsh, O. C. 1896 C, p. 484.

Zittel, K. A. 1890 A, p. 644. (Pseudosuchia.)

AETOSAURIDÆ.

Baur, J. 1887 C, p. 102. (Aethosauridæ.)

| Nicholson and Lydekker 1889 A, p. 1182.

TYPOTHORAX Cope. Type *T. coccinarum* Cope.

Cope, *E. D.* 1875 R, p. 265.

1875 F, p. 84.

1877 K, p. 29.

1887 A, p. 210.

1887 E.

1896 I, p. 123.

Marsh, O. C. 1896 B, p. 62.

Nicholson and Lydekker 1889 A, pp. 1187, 1188.

Steinmann and Döderlein 1890 A, p. 658.

Zittel, K. A. 1890 A, p. 644.

Typothorax coccinarum Cope.

Cope, *E. D.* 1875 R, p. 265. (In part.)

1875 A.

1875 F, p. 84.

1877 K, p. 30, pl. xxii, figs. 1-9.

1887 A, p. 210, pl. i.

1887 E.

1896 I, p. 123.

Triassic; New Mexico.

STEGOMUS Marsh. Type *S. arcuatus* Marsh.

Marsh, O. C. 1896 B, p. 59.

Cope, *E. D.* 1896 I, p. 123.

Regarded by Professor Marsh as belonging to
the *Parasuchia*.

Stegomus arcuatus Marsh.

Marsh, O. C. 1896 B, p. 60, pl. i.

Triassic; Connecticut.

Suborder EUSUCHIA Huxley.

Huxley, T. H. 1875 B.

Cope, *E. D.* 1871 B, p. 235. (Proccælia.)

1889 R, p. 864.

1891 N, p. 45.

1896 B, p. 73.

1900 A, p. 161.

Deslongchamps-Eudes, J. A. 1864 A. ("Télesau-
riens.")

Fürbringer, M. 1900 A, p. 306.

Gadow, H. 1896 A, p. 38. (Crocodylia.)

1898 A, p. 19.

Haeckel, E. 1895 A, pp. 364, 367. (Typosuchia.)

Lydekker, R. 1888 B, p. 43.

Nicholson and Lydekker 1889 A, p. 1186.

Owen, R. 1860 A, p. 165. (Proccælia.)

Parker, W. K. 1868 A, p. 126. (Crocodylia.)

Woodward, A. S. 1896 B, p. 223.

Zittel, K. A. 1890 A, p. 647.

CROCODYLIDÆ.

Gray, J. E., 1825, *Annals Philos.* (2), x, p. 196.
(Crocodylidæ.)

The usual way of spelling this name is *Crocody-
lidæ*.

Bemmelen, J. F. 1896 A, p. 332.

Boulenger, G. A. 1889 A, p. 274.

Calori, L. 1894 A.

Cope, *E. D.* 1871 B.

1900 A, p. 161.

Deslongchamps-Eudes, J. A. 1864 A. ("Crocody-
liens.")

Gaupp, E. 1896 B.

Gegenbaur, C. 1896 A.

Hoffmann, C. K. 1890 B.

Huxley, T. H. 1859 B, p. 5 (Crocodylidæ); p. 2
(Alligatoridæ).

1872 A, p. 221. (Alligatoridæ, Crocodylidæ.)

Lydekker, R. 1888 B, p. 44.

Nicholson and Lydekker 1889 A, p. 1192.

Röse, C. 1892 C.

Steinmann and Döderlein 1890 A, p. 657.

Zittel, K. A. 1890 A, p. 681 (Crocodylidæ); p. 679
(Alligatoridæ).

CROCODYLUS Laurenti.

Laurenti, J. N. 1768, Synop. Rept., p. 53.

The name of this genus is usually spelled *Crocodylus*. The above form is the original one.

Boulenger, G. A. 1889 A, p. 277.

1896 B.

Cope, E. D. 1867 C, p. 143. (*Thecachampsa*, type *T. contusor*.)

1869 G, p. 11. (*Thecachampsa*.)

1869 M, pp. 62, 231. (*Thecachampsa*.)

1870 D, p. 174. (*Thecachampsa*.)

1872 V, p. 554. (*Ichthyosuchus*.)

1875 C, p. 31.

1882 J, p. 983. (*Crocodylus*, *Thecachampsa*.)

1884 O, p. 151.

1900 A, p. 171.

Cuvier, G. 1834 A, ix, pp. 25-344, with plates.

Gegenbaur, C. 1898 A.

Giebel, C. G. 1877 A, p. 106.

Hoffmann, C. K. 1890 B.

Huxley, T. H. 1859 B, p. 6.

1869 B.

1872 A, p. 217.

1875 B.

Klein, E. F. 1863 A.

Kükenthal, W. 1893 A.

Leidy, J. 1871 C, p. 368.

1872 B, p. 366.

Ludwig, R. 1877 A.

Lydekker, R. 1888 B, p. 53.

Marsh, O. C. 1870 C, p. 98. (*Thecachampsa*; not tenable.)

Miall, L. C. 1878 C.

Nicholson and Lydekker 1889 A, p. 1194 (*Thecachampsa*); p. 1196 (*Crocodylus*).

Owen, R. 1847 B, p. 238.

1850 B, p. 521.

1866 A.

Parker, W. K. 1883 A.

Segond, L. A. 1873 A, p. 10. ("Crocodylus.")

Steinmann and Döderlein 1890 A, p. 657.

Toula and Kall 1885 A.

Woodward, A. S. 1886 D.

Zittel, K. A. 1890 A, p. 682 (*Crocodylus*); p. 683 (*Thecachampsa*).

Crocodylus acer Cope.

Cope, E. D. 1882 J, pp. 982, 986, fig. 2.

1884 O, pp. 152, 154, pl. xxiii, figs. 1, 2.

Zittel, K. A. 1890 A, p. 682, fig. 604.

Eocene (Manti beds); Utah.

Crocodylus affinis Marsh.

Marsh, O. C. 1871 B, p. 454.

Cope, E. D. 1882 J, p. 984, fig. 4; p. 986.

1884 O, pp. 152, 162, pl. xxi, figs. 1-8.

Leidy, J. 1872 B, p. 366.

Eocene (Bridger); Wyoming.

Crocodylus antiquus Leidy.

Leidy, J. 1862 K, pl. xvi. (*Crocodylus*.)

Cope, E. D. 1867 C, p. 143. (*Thecachampsa contusor*.)

1869 G, p. 12. (*Thecachampsa*.)

1869 M, p. 64, fig. 16. (*Thecachampsa*.)

1882 J, p. 983.

Emmons, E. 1868 B, p. 215, fig. 35 A.

Eocene; Virginia.

Crocodylus aptus Leidy.

Leidy, J. 1869 B, p. 67.

Cope, E. D. 1844 O, p. 162.

Leidy, J. 1871 C, p. 368.

1872 B, p. 366.

1873 B, p. 126, pl. viii, fig. 2.

Eocene (Wasatch?); Wyoming.

Crocodylus brevicollis Marsh.

Marsh, O. C. 1871 B, p. 456.

King, C. 1878 A, p. 406.

Eocene (Bridger); Wyoming.

Crocodylus chamensis Cope.

Cope, E. D. 1874 O, p. 15. (Alligator.)

1875 C, p. 33. (C. heterodon, in part.)

1877 K, p. 67, pl. xxxii, figs. 1-22.

1884 O, p. 166.

Eocene (Wasatch); New Mexico.

Crocodylus clavis Cope.

Cope, E. D. 1872 R, p. 485.

1873 E, p. 612.

1882 J, p. 983, fig. 5; p. 986.

1884 O, pp. 152, 157, pl. xxi, figs. 4-9; pl. xxii.

Osborn, Scott, and Speir 1878 A, p. 93.

Eocene (Bridger); Wyoming.

Crocodylus eliotti Leidy.

Leidy, J. 1870 N.

Cope, E. D. 1873 E, p. 612.

1875 C, p. 33.

1877 K, p. 65, pl. xxxi, figs. 6-17.

1882 J, pp. 983, 986.

1884 O, p. 152. (*Thecachampsa*.)

King, C. 1878 A, p. 406.

Leidy, J. 1870 R.

1871 C, p. 368.

1872 B, p. 366.

1873 B, p. 126, pl. viii, figs. 4-8.

Marsh, O. C. 1871 B, p. 454.

Osborn, Scott, and Speir 1878 A, p. 85.

Zittel, K. A. 1890 A, p. 683. (*Thecachampsa*.)

Eocene (Bridger); Wyoming, New Mexico.

Crocodylus fastigiatus Leidy.

Leidy, J. 1861 G, p. 327.

Cope, E. D. 1869 M, p. 65. (*Thecachampsa*.)

1882 J, p. 986.

Eocene; Virginia.

Crocodylus grinnellii Marsh.

Marsh, O. C. 1871 B, p. 456.

Cope, E. D. 1873 E, p. 613.

Leidy, J. 1872 B, p. 366.

Marsh, O. C. 1871 G, p. 106.

Eocene (Bridger); Wyoming.

Crocodylus grypus Cope.

Cope, E. D. 1875 C, p. 32.

1877 K, p. 63, pl. xxx.

1882 J, p. 983.

King, C. 1878 A, p. 377.

Eocene (Bridger?); New Mexico.

***Crocodylus heterodon* Cope.**

- Cope, E. D.* 1872 T, p. 544. (Alligator.)
 1873 E, p. 614. (Alligator.)
 1875 C, p. 34.
 1882 J, pp. 983, 986.
 1884 O, p. 164, pl. xxiii a, figs. 10-18.
King, C. 1878 A, p. 376 (Alligator); p. 377 (Crocodylus).
Osborn, Scott, and Speir 1878 A, p. 98.
 Eocene (Wasatch); Wyoming.

***Crocodylus humilis* Leidy.**

- Leidy, J.* 1856 F, p. 73.
Cope, E. D. 1869 M, p. 82.
 1874 C, p. 27. (Bottosaurus?)
 1875 E, p. 254. (Bottosaurus?)
 1877 G, p. 573.
Leidy, J. 1856 C, p. 120.
 1860 A, p. 146, pl. xi, figs. 9-19.
Marsh, O. C. 1897 C, p. 527.
 Cretaceous (Laramie); Montana, Colorado.

***Crocodylus liodon* Marsh.**

- Marsh, O. C.* 1871 B, p. 454.
Cope, E. D. 1873 E, p. 613.
 1875 C, p. 53.
 1877 K, p. 67, pl. xxi, figs. 18-23. (C. liodon?)
 1884 O, p. 153.
Leidy, J. 1872 B.
Marsh, O. C. 1871 G, p. 104.
 Eocene; Wyoming, New Mexico.

***Crocodylus marylandicus* Clark**

- Clark, W. B.* 1895 A, p. 4.
 1897 A, p. 58, pl. viii, fig. 1.
 Eocene; Maryland.

***Crocodylus parvus* Osb., Scott, and Speir.**

- Osborn, Scott, and Speir* 1878 A, p. 91.
 Eocene (Bridger); Wyoming.

***Crocodylus polyodon* Cope.**

- Cope, E. D.* 1873 E, p. 614. (Diplocynodus.)
 1882 J, p. 981.
 1884 O, p. 154, pl. xxiii, figs. 1, 2.
 Eocene (Bridger); Wyoming.

***Crocodylus rugosus* (Emmons).**

- Emmons, E.* 1856 B, p. 219, figs. 38, 39. (Polyptychodon.)
Cope, E. D. 1871 M, p. 213. (Thecachampsa.)
 1875 V, p. 33, pl. viii, fig. 3. (Thecachampsa.)
Emmons, E. 1860 A, p. 238, fig. 180^r. (Polyptychodon.)
Leidy, J. 1865 A, pp. 18, 116. (Polyptychodon.)
 Eocene; North Carolina.

The following references are given to notices of undetermined and undescribed remains of *Crocodylus*:

- Cope, E. D.* 1881 D, p. 184. Eocene; Wyoming.
 1882 E, p. 143. Eocene.
Leidy, J. 1865 A, p. 116. Eocene; New Jersey, North Carolina.

***Crocodylus sericodon* Cope.**

- Cope, E. D.* 1867 C, p. 143. (Thecachampsa.)
 1869 B, p. 738. (Thecachampsa.)
 1869 G, p. 12. (Thecachampsa.)
 1869 K, p. 91. (Thecachampsa.)
 1869 M, p. 64, pl. v, figs. 7, 8. (Thecachampsa.)
 1875 H, p. 363. (Thecachampsa.)
 1882 J, p. 984.
 Miocene; Maryland, New Jersey.

***Crocodylus serratus* Cope.**

- Cope, E. D.* 1872 Y, p. 171. (Thecachampsa.)
 1882 J, p. 986.
 Eocene; New Jersey.

***Crocodylus sicarius* Cope.**

- Cope, E. D.* 1869 G, p. 12. (Thecachampsa.)
 1869 K, p. 91. (Thecachampsa.)
 1869 M, p. 63, pl. v, fig. 6. (Thecachampsa.)
 1882 J, p. 984.
 Miocene; Maryland.

***Crocodylus solaris* Marsh.**

- Marsh, O. C.* 1877 D, p. 254.
 Pliocene?; South Dakota.

***Crocodylus squankensis* Marsh.**

- Marsh, O. C.* 1869 A, p. 391. (Thecachampsa.)
Cope, E. D. 1871 C, p. 65. (Thecachampsa.)
 1872 Y, p. 17. (Thecachampsa.)
 1882 J, p. 983.
Marsh, O. C. 1870 C, p. 98. (Thecachampsa.)
 Eocene; New Jersey.

***Crocodylus stavelianus* Cope.**

- Cope, E. D.* 1885 Q.
 Eocene (Puerco); New Mexico.

***Crocodylus subulatus* Cope.**

- Cope, E. D.* 1872 V, p. 554. [Crocodylus (Ichthyosuchus).]
 1873 E, p. 613. (Diplocynodus.)
 1877 K, p. 60. (Diplocynodus.)
 1882 J, pp. 983, 986.
 1884 O, p. 152, pl. xxiii, figs. 4-9.
 Eocene (Bridger); Wyoming.

***Crocodylus sulciferus* Cope.**

- Cope, E. D.* 1872 V, p. 556.
 1873 E, p. 612.
 1882 J, p. 983.
 1884 O, p. 157, pl. xxiii, fig. 23.
 Eocene (Bridger); Wyoming.

***Crocodylus wheeleri* Cope.**

- Cope, E. D.* 1875 C, p. 33.
 1875 F, p. 95. (C. wheeleri.)
 1877 K, p. 64, pl. xxxi, figs. 1-5
 1882 J, p. 983.
 Eocene; New Mexico.

- Wyman, J.* 1850 B, p. 233, fig. 8. Eocene; South Carolina.

LIMNOSAURUS Marsh. Type *Crocodylus ziphodon* Marsh.

Marsh, O. C. 1872 K, p. 309.

Limnosaurus ziphodon Marsh.Marsh, O. C. 1871 G, p. 104. (*Crocodylus*.)Cope E. D. 1882 J, p. 986. (*Crocodylus ziphodon*.)

King, C. 1878 A, p. 406.

Leidy, J. 1872 B, p. 366. (*Crocodylus*.)Marsh, O. C. 1871 B, p. 453. (*Crocodylus*.)
1872 K, p. 309.

Eocene; Wyoming.

POLYDECTES Cope. Type *P. biturgidus* Cope.

Cope, E. D. 1869 I.

1870 D, p. 271.

1875 V, p. 33.

Polydectes biturgidus Cope.

Cope, E. D. 1869 I.

1870 D, p. 271.

1875 V, p. 33, pl. viii, fig. 2.

Cretaceous?; North Carolina.

ALLIGATOR Cuvier. Type *A. lucius* Cuvier = *Crocodylus mississippiensis* Daudin.

Cuvier, G., 1807, Ann. Mus., x, p. 30.

Boulenger, G. A. 1889 A, p. 289.

1896 B.

Clarke, S. F. 1891 A.

Cope, E. D. 1873 E, p. 614.

1900 A, pp. 161, 164.

Hoffmann, C. K. 1890 B.

Huxley, T. H. 1859 A, p. 3.

Ludwig, R. 1877 A.

Lydekker, R. 1889 B, p. 44.

Nicholson and Lydekker 1889 A, p. 1196.

Alligator mississippiensis Daudin.Daudin, F. M., 1802, Hist. Nat. Rept., ii, p. 412.
(*Crocodylus*.)

Boulenger, G. A. 1889 A, p. 290.

Leidy, J. 1860 B, p. 122, pl. xxvii, figs. 6, 7.

1889 E, p. 31.

1892 A.

Recent and in Peace Creek beds; Florida:
Pleistocene; South Carolina.**BOTTOSAURUS Agassiz.** Type *Crocodylus macrorhynchus* Harlan = *Bottosaurus harlani* Meyer.Agassiz, L., 1849, Proc. Acad. Nat. Sci. Phila., iv,
p. 169.

Cope, E. D. 1869 K, p. 90.

1869 M, pp. 62, 65.

Leidy, J. 1866 A, p. 12.

Zittel, K. A. 1890 A, p. 679.

Bottosaurus harlani (Meyer).Meyer, H., 1832, Palaeologica, p. 108. (*Crocodylus*.)

Cope, E. D. 1867 E, p. 26.

1869 B, p. 736.

1869 M, pp. 65, 231. (In part.)

1871 G, p. 48. (*B. macrorhynchus*.)1875 E, p. 253. (*B. macrorhynchus*.)1875 V, p. 48. (*B. macrorhynchus*.)De Kay, J. E. 1842 A, p. 27. (*Crocodylus macrorhynchus*.)Gibbes, R. W. 1851 A, p. 7. (*C. macrorhynchus*.)Giebel, C. G. 1847 B, p. 122. (*C. macrorhynchus*.)

Harlan, R. 1824 B, pl. i ("Crocodile").

1834 B, p. 76. (*C. macrorhynchus*.)Harlan, R. 1835 B, p. 280. (*C. macrorhynchus*.)1835 I, p. 380, with plate. (*C. macrorhynchus*.)Leidy, J. 1866 A, pp. 12, 115, pl. iv, figs. 19-21; pl.
xvii, figs. 11-14. (*B. harlani*, in part.)1865 D, p. 67. (*B. harlani*.)

Cretaceous; New Jersey.

Bottosaurus perrugosus Cope.

Cope, E. D. 1874 C, p. 26.

1874 B, p. 452.

1875 E, pp. 68, 258, pl. vi, figs. 5-8.

Lambe, L. M. 1899 A, p. 69. (Identification
doubtful.)

Cretaceous; Colorado, British America?.

Bottosaurus tuberculatus Cope.

Cope, E. D. 1869 M, p. 230.

1869 M, p. 65. (*B. harlani*, in part.)

1871 G, p. 48.

Cretaceous; New Jersey.

DIPLOCYNODON Pomel. Type *D. ratelii* Pomel.

Pomel, A. 1847 C, p. 383.

Cope, E. D. 1869 M, p. 62. (*Plerodon*.)1877 K, p. 60. (*Diplocynodus*.)1882 J, p. 986. (*Plerodon*.)Lydekker, R. 1886 E, p. 211. (*Plerodon*.)

1888 B, p. 45.

Meyer, H., 1839, Neues Jahrb. Mineral., p. 77.
(*Plerodon*.)1857, Neues Jahrb. Mineral., p. 538. (*Pleurodon*.)

Nicholson and Lydekker 1889 A, p. 1196.

Zittel, K. A. 1890 A, p. 679.

Diplocynodon spheonops (Cope).Cope, E. D. 1875 C, p. 31. (*Diplocynodus*.)1877 K, p. 60, pl. xxix. (*Diplocynodus*.)1882 J, p. 986. (*Plerodon*.)King, C. 1878 A, p. 377. (*Diplocynodus*.)

Eocene; New Mexico.

GAVIALIDÆ.

Huxley, T. H. 1859 B.

Boulenger, G. A. 1889 A, p. 274. (Crocodilidæ, in part.)

Huxley, T. H. 1872 A, p. 222.

Zittel, K. A. 1890 A, p. 674 (Gavialidæ); p. 672 (Rhynchosuchidæ).

GAVIALIS Oppel. Type *G. gangeticus* Linn.

Oppel, M., 1811, Ordnungen der Reptilien, p. 19.

Boulenger, G. A. 1889 A, p. 275.

Cope, E. D. 1900 A, p. 162.

Lydekker, R. 1888 B, p. 65. (Garialia.)

Owen, R. 1850 B, p. 521.

Toula and Kail, 1885 A.

Zittel, K. A. 1890 A, p. 674.

Cope, E. D. 1869 B, p. 736. (Hyposaurus: no description.)

1875 E, p. 254.

1875 K.

Cretaceous; New Jersey.

Gavialis minor Marsh.

Marsh, O. C. 1870 C.

Cope, E. D. 1872 Y, p. 18. (Thecachampæ?).

Eocene; New Jersey.

Gavialis fraterculus Cope.

Cope, E. D. 1869 M, p. 82. (Hyposaurus.)

HETERODONTOSUCHUS Lucas. Type *H. ganei* Lucas.

Lucas, F. A. 1898 A.

Heterodontosuchus ganei Lucas.

Lucas, F. A. 1898 A.

Triassic; Utah.

THORACOSAURUS Leidy. Type *T. grandis* Leidy = *Gavialis neocasiensis* De Kay.

Leidy, J. 1852 B.

Agassiz, L. 1849 A. (Sphenosaurus, type *Crocodylus clavirostris*; not of Meyer, 1847.)

Cope, E. D. 1869 M, p. 79.

1900 A, p. 161.

Gibbes, R. W. 1851 A, pp. 7, 13.

Koken, E. 1888 B.

Leidy, J. 1865 A, p. 5.

Nicholson and Lydekker 1899 A, p. 1193.

Steinmann and Döderlein 1890 A, p. 657. (Thoracosuchus.)

Zittel, K. A. 1890 A, p. 672.

Thoracosaurus neocasiensis (De Kay).

De Kay, J. E. 1842 A, p. 28, pl. xxii, fig. 59. (Gavialis.)

Agassiz, L. 1849 A. (Sphenosaurus clavirostris.)

Cope, E. D. 1867 E, p. 26. (T. neocasiensis.)

1869 B, p. 736. (T. neocasiensis.)

1869 M, pp. 68, 79. (T. neocasiensis.)

1875 E, p. 250. (T. neocasiensis.)

De Kay, J. E. 1833 A, pl. iii, figs. 7-11. ("Gavial.")

Gibbes, R. W. 1850 A. (Sphenosaurus clavirostris.)

1851 A, p. 7 (Croc. clavirostris); p. 13

(Croc. basiffusus.)

Glebel, C. G. 1847 B, p. 122. (Croc. clavirostris.)

Koken, E. 1888 B, p. 757.

Leidy, J. 1852 B. (Thoracosaurus grandis.)

1852 K, p. 135. (Croc. dekayi, C. basiffusus.)

1865 A, pp. 5, 115, pl. i, figs. 1-6; pl. ii, figs.

1-3; pl. iii, figs. 5-11.

1865 D, p. 67.

Morton, S. G. 1844 A. [Crocodilus (Gavialis?) clavirostris.]

1845 A. (Croc. clavirostris.)

Owen R. 1849 A, p. 381, pl. x, figs. 1, 2. (Croc. basiffusus.)

1860 A, p. 165. (Croc. basiffusus.)

Woodward, A. B. 1890 A, p. 393.

Zittel, K. A. 1890 A, p. 673.

Cretaceous; New Jersey.

HOLOPS Cope. Type *H. brevispinis* Cope.

Cope, E. D. 1869 H, p. 123.

1869 M, pp. 62, 67, 231.

1900 A, p. 162.

Huxley, T. H. 1875 B.

Lydekker, R. 1886 E, p. 211.

Nicholson and Lydekker 1889 A, p. 1193.

Zittel, K. A. 1890 A, p. 673.

Holops basitruncatus (Owen).

Owen, R. 1849 A, p. 381, pl. x, figs. 3, 4. (Crocodilus.)

Cope, E. D. 1869 B, p. 736. (Thoracosaurus tenebrosus.)

Cope, E. D. 1869 H, p. 123. (H. tenebrosus.)

1869 M, pp. 67, 77, fig. 19, p. 231, pl. iv, figs. 8, 9 (H. basitruncatus; called erroneously on plate Bottosaurus harlani); p. 78 (H. tenebrosus).

1875 E, p. 253.

Gibbes, R. W. 1851 A, p. 13. (Crocodilus.)

Leidy, J. 1852 K, p. 135. (Crocodilus.)

1865 A, p. 14 (syn. of Bottosaurus harlani); p. 115, pl. iii, figs. 12-15 (Crocodilus tenebrosus).

Owen, R. 1860 A, p. 165. (Crocodilus.)

Eocene; New Jersey.

Holops brevispinis Cope.

- Cope, E. D. 1869 H, p. 123.
 1869 B, p. 736. (Thoracosaurus; no description.)
 1869 M, p. 69, pl. i, fig. 13; pl. iv, figs. 4-6.
 1875 E, p. 252.
 Cretaceous; New Jersey.

Holops cordatus Cope.

- Cope, E. D. 1869 M, p. 73, fig. 18; pl. iv, fig. 1.
 1875 E, p. 253.
 Cretaceous; New Jersey.

Holops glyptodon Cope.

- Cope, E. D. 1869 M, pp. 74, 231.
 1869 B, p. 736. (Thoracosaurus; no description.)
 1875 E, p. 253.
 Cretaceous; New Jersey.

Holops obscurus (Leidy).

- Leidy, J. 1865 A, pp. 15, 16, 115, pl. ii, figs. 4, 5. (Crocodylus.)
 Cope, E. D. 1867 E, p. 26. (Thoracosaurus.)
 1869 B, p. 736. (Thoracosaurus.)
 1869 H, p. 123.
 1869 M, pp. 68, 75, 231, pl. iv, figs. 1-3.
 1871 C, p. 75.
 1875 E, p. 253.
 Leidy, J. 1865 A, pl. i, figs. 7-9.
 Lydekker, R. 1886 E, p. 211.
 Cretaceous; New Jersey.

Holops pneumaticus Cope.

- Cope, E. D. 1872 X.
 1875 E, p. 250.
 Cretaceous; New Jersey.

GONIOPHOLIDÆ.

- Lydekker, R. 1888 B, p. 76. (Goniopholididæ.)
 1890 A, p. 229. (Goniopholididæ.)

- Nicholson and Lydekker 1889 A, p. 1189.
 Zittel, K. A. 1890 A, p. 676.

GONIOPHOLIS Owen. Type *G. crassidens* Owen.

- Owen, R. 1842 A, p. 69.
 Cope, E. D. 1878 H, p. 391. (Amphicotylus, type *A. lucasii*.)
 Lydekker, R. 1888 B, p. 79.
 1890 A, p. 229.
 Marsh, O. C. 1877 D, p. 254. (Diplosaurus, type *D. felix*.)
 1877 E. (Diplosaurus.)
 1896 B, p. 62. (Diplosaurus.)
 Nicholson and Lydekker 1889 A, p. 1191.
 Owen, R. 1878 A.
 1879 A.
 Zittel, K. A. 1890 A, p. 676.

Goniopholis felix (Marsh).

- Marsh, O. C. 1877 D, p. 254. (Diplosaurus.)
 King, C. 1878 A, p. 346. (Diplosaurus.)
 Marsh, O. C. 1896 B, p. 61, fig. 2. (Diplosaurus.)
 1897 C, p. 507, fig. 62.

- Zittel, K. A. 1890 A, p. 677. (Goniopholis.)
 Jurassic; Colorado.

Goniopholis lucasii Cope.

- Cope, E. D. 1878 H, p. 391. (Amphicotylus.)
 1888 Y.
 Zittel, K. A. 1890 A, p. 677.
 Jurassic; Colorado.

Goniopholis vebbiana (Cope).

- Cope, E. D. 1872 H, p. 310. (Hyposaurus.)
 1872 F, p. 327. (Hyposaurus vebbii.)
 1874 C, p. 26. (H. vebbii.)
 1875 E, pp. 52, 67, 250 (H. vebbii); pl. ix, figs. 8-8d (H. vebbiana).
 Marsh, O. C. 1877 D, p. 254. (Diplosaurus vebbii.)
 Williston, S. W. 1896 D, p. 78. (Hyposaurus.)
 Zittel, K. A. 1890 A, p. 677. (Goniopholis vebbii.)
 Cretaceous (Benton); Kansas.

HYPOSAURUS Owen. Type *H. rogersii* Owen.

- Owen, R. 1849 A, p. 383.
 Cope, E. D. 1866 F, p. 111.
 1869 M, p. 80.
 1875 K.
 Gibbes, R. W. 1851 A, p. 13.
 Lydekker, R. 1888 B, p. 90.
 Marsh, O. C. 1877 E.
 Nicholson and Lydekker 1889 A, p. 1190.
 Zittel, K. A. 1890 A, pp. 672, 676.

Hyposaurus ferox Marsh.

- Marsh, O. C. 1871 G, p. 104.
 Cretaceous; New Jersey.

Hyposaurus rogersii Owen.

- Owen, R. 1849 A, p. 383, pl. xi, figs. 7-10.

- Cope, E. D. 1867 E, p. 26.
 1869 B, p. 736.
 1869 M, p. 80, pl. iv, figs. 10, 11.
 1875 E, p. 250.
 Gibbes, R. W. 1851 A, p. 9, pl. iii, fig. 13. (Holcodusa acutidens, New Jersey specimen, *not* Leidy.)
 Leidy, J. 1865 A, pp. 18, 116, pl. iii, figs. 4, 16-21: pl. iv, figs. 1-12.
 1865 D, p. 68.
 Williston, S. W. 1894 B, p. 3, pl. i, figs. 4, 5. (Identification doubtful.)
 1898 D, p. 76, figs. 3, 4. (Identification doubtful.)
 Cretaceous, New Jersey, Kansas.

PLIOGONODON Leidy. Type *P. priscus* Leidy.*Leidy, J.* 1856 L, p. 255.

1857 A, p. 271.

Zittel, K. A. 1890 A, p. 620. (Syn.? of *Momiasaurus*.)

A genus of uncertain affinities.

Pliogonodon priscus Leidy.*Leidy, J.* 1856 L, p. 255.

Cope, E. D. 1875, V, p. 33.

Emmons, E. 1858 B, p. 223, figs 43, 44. (*P. nobilis*.)

Leidy, J. 1857 A, p. 271.

1865 A, pp. 103, 119.

Miocene?; North Carolina.

Class AVES Linn.

Linnaeus, C., 1758, Syst. Nat., ed. x, p. 78.

Ahlborn, F. 1896 A.

Baur, G. 1883 A.

1884 A.

1884 B.

1884 E.

1885 A.

1885 B.

1885 C.

1886 B.

1887 A.

Blanchard, É. 1859 A.

1860 A.

Burckhardt, R. 1895 A.

Calori, L. 1894 A.

Cope, E. D. 1869 M, pp. 4, 236.

1885 G.

1889 R, pp. 863, 869.

1891 N, p. 63.

1898 B, p. 83.

Couch, E. 1884 A.

Dames, W. 1884 A.

Dollo, L. 1883 B.

Edwards, A. M. 1863 A.

1869 A.

Fürbringer, M. 1885 A.

1888 A.

1889 A.

1890 A.

1892 A.

1896 A.

Gadow, H. 1888 A.

1889 A, p. 474.

1891 A.

1892 A.

1896 A, p. 42.

1896 B.

Gaupp, E. 1900 A.

Gegenbaur, C. 1864 A.

1865 A.

1898 A.

Glebel, C. G. 1866 A.

Haeckel, E. 1895 A, p. 400.

Hallmann, E. 1837 A, pp. 14, 32.

Hoffmann, C. K. 1879 A.

Humphrey, G. M. 1866 A.

Hurst, C. H. 1893 A.

Huxley, T. H. 1867 A.

1868 A.

1870 A.

1870 C.

1872 A, pp. 168, 233.

1876 B, xlii, pp. 468, 514.

Jeffries, J. A. 1881 A.

Jeffries, J. A. 1882 A.

Köstlin, O. 1844 A.

Leidy, J. 1871 C, p. 365.

Lucas, F. A. 1899 C, p. 323.

Lydekker, R. 1891 A.

Magnus, H. 1899 A.

Marsh, O. C. 1877 E.

Marshall, W. 1872 A.

Mehnert, E. 1887 A.

Morse, E. S. 1871 A.

1872 A.

1880 A.

Newton, A. 1868 A.

1875 A.

1896 A.

Nicholson and Lydekker 1889 A, p. 1208.

Osborn, H. F. 1900 G, p. 777.

Owen, R. 1864 C.

1866 B.

1873 C.

Parker, W. K. 1864 A.

1870 A.

1875 A.

1875 B.

1876 A.

1878 B.

1879 B, p. 81.

1884 A.

1887 A.

1889 A.

1891 A.

1891 B.

Pavlov, A. 1885 A.

Schenk, F. 1897 A.

Segond, L. A. 1864 A.

1865 A.

Selenka, E. 1869 A.

Shufeldt, R. W. 1885 A.

1886 A.

1886 B.

1886 C.

1899 A, p. 101.

Steinmann and Döderlein 1890 A, p. 670.

Stejneger, L. 1885 A.

Vetter, B. 1885 A.

Wiedersheim, R. 1884 A.

Wildermuth, H. A. 1877 A.

Woodward, A. S. 1898 B, p. 231.

Woodward, H. 1874 A.

1874 B.

1885 C.

1886 C.

Zittel, K. A. 1890 A, pp. 804, 857.

Subclass SAURURÆ Haeckel.

Cope, E. D. 1889 R, p. 869.
1898 B, p. 83.

Fürbringer, M. 1888 A, p. 1519.

Gadow, H. 1892 A, p. 236. (Archornithes.)
1898 A, p. 30. (Archæornithes.)

Haeckel, E. 1896 A, pp. 402, 409.

Huxley, T. H. 1867 A, p. 418.
1872 A, p. 233.

Menzbier, M. 1887 A.

Nicholson and Lydekker 1889 A, p. 1221.

Parker, W. K. 1875 A.

Pavlov, A. 1885 A, p. 113.

Stejneger, L. 1885 A, p. 21.

Woodward, A. S. 1898 B, p. 232. (Subclass Archæornithes; order Saururæ.)

Woodward, H. 1886 C, p. 370.

Zittel, K. A. 1890 A, p. 820.

Order ORNITHOPAPPI Stejneger.

Stejneger, L. 1885 A, p. 21.

Cope, E. D. 1889 R, p. 869.

Cope, E. D. 1896 B, p. 84.

Haeckel, E. 1896 A, p. 410. (Archæornithes.)

ARCHÆOPTERYGIDÆ.

Cope, E. D. 1898 B, p. 84.

Fürbringer, M. 1888 A, p. 1519.

Huxley, T. H. 1872 A, p. 233.

Nicholson and Lydekker 1889 A, p. 1221.

ARCHÆOPTERYX Meyer.

Meyer, H., 1861, Neues Jahrb. Mineral., p. 679.

Although no species of this genus has been found in North America, the following citations of the literature are given on account of the important information furnished by the genus.

Baur, G. 1884 B, p. 451.
1886 D.

Branco, W. 1885 A.

Dames, W. 1882 A.

1884 A.

1884 B.

1897 A, p. 818.

Edwards, A. M. 1863 A.

1869 A, p. 673.

Fraas, E. 1885 A.

Fürbringer, M. 1888 A, p. 1522.

Gadow, H. 1888 A, p. 166.

1891 A.

1892 A, p. 236.

Gaupp, E. 1894 A.

Haeckel, E. 1896 A, p. 412.

Hurst, C. H. 1893 A.

1896 A.

Huxley, T. H. 1868 A, p. 361.

Marsh, O. C. 1882 C.

Meyer, H., 1861, Palæontographica, 1, p. 53.

Newton, A. 1875 A, p. 728.

Nicholson and Lydekker 1889 A, p. 1221.

Owen, R. 1864 C.

Parker, W. K. 1868 A, p. 142.

1875 A.

Pavlov, A. 1885 A.

Pycraft, W. P. 1894 A.

1896 A.

Selenka, E. 1869 A, pl. III, figs. 4, 5.

Steinmann and Döderlein 1890 A, p. 668.

Stejneger, L. 1885 A, p. 21.

Vetter, B. 1885 A.

Vogt, C. 1880 A.

Wagner, A. 1861 A.

Wiedersheim, R. 1884 A, p. 659.

Woodward, A. S. 1898 B, p. 232, figs. 141, 142.

Woodward, H. 1874 B.

1884 A.

1885 C, p. 311.

1886 C, p. 359, figs. 5, 20.

Zittel, K. A. 1890 A, p. 820.

LAOPTERYX Marsh. Type *L. priscus* Marsh.

Marsh, O. C. 1881 C, p. 341.

Fürbringer, M. 1888 A, p. 1478.

Marsh, O. C. 1882 C.

Menzbier, M. 1887 A, p. 581.

Nicholson and Lydekker 1889 A, p. 1229.

Pavlov, A. 1885 A, p. 107.

Stejneger, L. 1885 A, p. 23.

Zittel, K. A. 1890 A, p. 824.

The true position of this genus is problematical.

Laopteryx priscus Marsh.

Marsh, O. C. 1881 C, p. 341.

Coues, E. 1884 A, p. 829.

Fürbringer, M. 1888 A.

Marsh, O. C. 1897 C, p. 508.

Stejneger, L. 1885 A, p. 23.

Jurassic; Wyoming.

Subclass EURHIPIDURA Gill.

Gill, T., 1874, Baird, Brewer, and Ridgway's Land
Birds, i, Introd., p. xiii.
Cope, E. D. 1889 B, p. 869.
1891 N, p. 54.
Cope, E. D. 1898 B, p. 84.

Gadow, H. 1898 A, p. 30. (Neornithes.)
Haeckel, E. 1895 A, p. 402. (Ornithurae.)
Stejneger, L. 1885 A, p. 31.
Woodward, A. S. 1896 B, p. 294.

Superorder ODONTOTORMÆ Marsh.

Marsh, O. C. 1875 E, p. 630.
Cope, E. D. 1889 B, p. 869.
1891 N, p. 55.
1898 B, p. 84.
Fürbringer, M. 1888 A, p. 1421.
1892 B.
Grinnell, G. B. 1881 A, p. 258.
Lydekker, R. 1891 A, p. 200.
1896 A, p. 649.
Marsh, O. C. 1873 C. (<Odontornithes.)
1875 D, p. 407. (Ichthyornithes.)
1876 F, p. 511.
1876 G, p. 59.
1877 E. (<Odontornithes.)

Marsh, O. C. 1880 G, p. 119.
1882 C. (<Odontornithes.)
1883 C, p. 86.
Menzies, M. 1887 A.
Nicholson and Lydekker 1889 A, p. 1231.
Owen, R. 1873 A, p. 370. (<Odontornithes.)
Pavlov, A. 1885 A, p. 113.
Steinmann and Döderlein 1890 A, p. 673. (Odontornithes.)
Stejneger, L. 1885 A, p. 23.
Woodward, A. S. 1896 B, p. 242.
Woodward, H. 1886 C, p. 370. (<Odontornithes.)
Zittel, K. A. 1890 A, p. 834.

Order PTEROPAPPI Stejneger.

Stejneger, L. 1885 A, p. 23.
Cope, E. D. 1889 B, p. 870.
1891 N, p. 56.

Cope, E. D. 1898 B, p. 88.
Gadow, H. 1898 A, p. 31. (Ichthyornithes.)
Haeckel, E. 1895 A, p. 410. (Ichthyornithes.)

ICHTHYORNITHIDÆ.

Marsh, O. C. 1873 A.
Cope, E. D. 1898 B, p. 88.
Fürbringer, M. 1888 A, p. 1421.
1896 A, p. 497.

Lydekker, R. 1891 A, p. 201.
Marsh, O. C. 1873 C.
1875 E, p. 630.
Nicholson and Lydekker 1889 A, p. 1231.
Steinmann and Döderlein 1890 A, p. 673.

ICHTHYORNIS Marsh. Type *I. dispar* Marsh.

Marsh, O. C. 1872 Q.
Fürbringer, M. 1888 A.
1896 A, p. 499.
Grinnell, G. B. 1881 A, figs. 7, 9.
Huxley, T. H. 1876 B, xiii, p. 515.
Lydekker, R. 1896 A, p. 649.
Marsh, O. C. 1872 P. (Colonoosaurus, type *C. mutiget.*)
1873 C.
1875 E, p. 630.
1877 E.
1879 C.
1880 G.
1881 H.
1883 C.
Menzies, M. 1887 A.
Nicholson and Lydekker 1889 A, pp. 1219, 1231.
Seeley, H. G. 1876 B.
Shufeldt, R. W. 1893 A.
Steinmann and Döderlein 1890 A, p. 673.
Stejneger, L. 1885 A, p. 26.
Thompson, D'A. W. 1890 B.

Woodward, A. S. 1896 B, p. 242.
Woodward, H. 1886 C, p. 361.
Zittel, K. A. 1890 A, p. 834.

Ichthyornis agilis Marsh.

Marsh, O. C. 1873 D, p. 230. (Graculavus.)
Coues, E. 1884 A, p. 827.
Marsh, O. C. 1890 G, p. 197.
Williston, S. W. 1898 B, p. 46.
Cretaceous (Niobrara); Kansas.

Ichthyornis anceps Marsh.

Marsh, O. C. 1872 E, p. 364. (Graculavus.)
Cope, E. D. 1874 C, p. 17. (Graculavus.)
1875 E, p. 245. (Graculavus.)
Coues, E. 1872 B, p. 350. (Graculavus.)
1884 A, p. 827.
Marsh, O. C. 1873 D, p. 229. (Graculavus.)
1890 G, p. 198.
Williston, S. W. 1898 B, p. 47.
Cretaceous (Niobrara); Kansas.

Ichthyornis dispar Marsh.

- Marsh, O. C.* 1872 Q.
Cope, E. D. 1874 C, p. 17.
 1875 E, p. 246.
Coues, E. 1872 B, p. 350.
 1884 A, p. 827.
Dana, J. D. 1896 A, p. 851, fig. 1431.
Marsh, O. C. 1872 P. (*Colonicæurus mudgel.*)
 1873 C.
 1873 D, p. 230.
 1875 D, p. 403, pl. ix.
 1875 E, p. 625, pl. ii.
 1880 G, p. 197, pls. xxi-xxvi.
 1883 C, p. 70, figs. 19, 21-24, 28, 29.
Nicholson and Lydekker 1889 A, p. 1231, fig. 1116.
Shufeldt, R. W. 1893 A.
Williston, S. W. 1897 H, p. 245.
 1898 B, p. 46, pl. vii, figs. 1, 2.
Woodward, H. 1874 B.
Zittel, K. A. 1890 A, p. 835, figs. 712, 713.
 Cretaceous (Niobrara); Kansas.

Ichthyornis lentus Marsh.

- Marsh, O. C.* 1877 D, p. 253. (*Graculavus.*)
Coues, E. 1884 A, p. 827.
Marsh, O. C. 1880 G, p. 198.
 Cretaceous (Niobrara); Kansas.

Ichthyornis tener Marsh.

- Marsh, O. C.* 1880 G, p. 198, pl. xxx, fig. 8.
Coues, E. 1884 A, p. 828.
Williston, S. W. 1898 B, p. 47.
 Cretaceous (Niobrara); Kansas.

Ichthyornis validus Marsh.

- Marsh, O. C.* 1880 G, p. 198, pl. xxx, figs. 11-14.
Coues, E. 1884 A, p. 828.
 Cretaceous (Niobrara); Kansas.

Ichthyornis victor Marsh.

- Marsh, O. C.* 1876 F, p. 511.
Coues, E. 1884 A, p. 828.
Dana, J. D. 1896 A, p. 851, fig. 1430.
Grinnell, G. B. 1881 A, figs. 7, 9.
Marsh, O. C. 1880 G, p. 199, pls. xxvii-xxxiv.
 1883 C, p. 74, figs. 25, 27, 30.
 1897 C, p. 527, pl. xxvi, fig. 1.
Shufeldt, R. W. 1893 A.
Stejneger, L. 1885 A, p. 25, fig. 9. (No specific name.)
Williston, S. W. 1898 B, p. 47.
Woodward, A. S. 1898 B, p. 243, fig. 145.
Zittel, K. A. 1890 A, p. 834, fig. 711.
 Cretaceous (Niobrara); Kansas.

APATORNITHIDÆ.

Fürbringer, M. 1888 A.

Fürbringer, M. 1896 A, p. 497.

APATORNIS Marsh. Type *Ichthyornis celer* Marsh.

- Marsh, O. C.* 1873 C.
Fürbringer, M. 1888 A.
 1896 A, p. 497.
Grinnell, G. B. 1881 A.
Lydekker, R. 1896 A, p. 652.
Marsh, O. C. 1880 G, p. 141.
Nicholson and Lydekker 1889 A, p. 1231.
Zittel, K. A. 1890 A, p. 835.

Apatornis celer Marsh.

- Marsh, O. C.* 1873 A. (*Ichthyornis.*)

- Cope, E. D.* 1874 C, p. 17. (*Ichthyornis.*)
 1875 E, p. 246. (*Ichthyornis.*)
Coues, E. 1884 A, p. 826.
Marsh, O. C. 1873 C.
 1873 D, p. 230.
 1875 D, p. 404.
 1875 E, p. 626.
 1880 G, p. 192, pls. xxviii-xxxiii.
Williston, S. W. 1898 B, p. 47.
 Cretaceous (Niobrara); Kansas.

Superorder ODONTOLCÆ Marsh.

- Marsh, O. C.* 1875 D, p. 407.
Cope, E. D. 1889 R, p. 869.
 1891 N, p. 54.
 1896 B, p. 84.
Fürbringer, M. 1888 A.
 1892 B. (*Odontholcæ.*)
Gadow, H. 1858 A, p. 31.
Grinnell, G. B. 1881 A, p. 258.
Haeckel, E. 1895 A, p. 416, (*Hesperornithes.*)
Lydekker, R. 1891 A, p. 202.
 1896 A, p. 649.
Marsh, O. C. 1873 C. (*<Odontornithes.*)
 1875 D, p. 407.
 1875 E, p. 630.

- Marsh, O. C.* 1876 F. (*<Odontornithes.*)
 1876 G, p. 59.
 1877 B. (*<Odontornithes.*)
 1878 C, p. 409. (*<Odontornithes.*)
 1880 G, p. 5.
 1883 C, p. 86.
Menzies, M. 1887 A.
Nicholson and Lydekker 1889 A, p. 1224.
Pavlov, A. 1885 A, p. 113.
Steinmann and Döderlein 1890 A, p. 671.
Stejneger, L. 1885 A, p. 27. (*Odontholcæ.*)
Woodward, A. S. 1898 B, p. 234.
Wiedersheim, R. 1884 A, p. 664.
Zittel, K. A. 1890 A, p. 826.

Order DROMÆOPAPPI Stejneger.

Stejneger, L. 1885 A, p. 27.

Cope, E. D. 1899 R, 869.

Cope, E. D. 1898 B, p. 87.

Shufeldt, R. W. 1892 C. (*Hesperornioidea*.)

HESPERORNITHIDÆ.

Marsh, O. C. 1872 E, p. 363. (*Hesperornidæ*.)

Cope, E. D. 1889 R.

1898 B, p. 87.

Fürbringer, M. 1888 A.

1890 B.

1896 A, p. 499.

Lydekker, R. 1891 A, p. 204.

Marsh, O. C. 1876 F, p. 509.

Shufeldt, R. W. 1892 C, p. 202.

Steinmann and Döderlein 1890 A, p. 671.

HESPERORNIS Marsh. Type *H. regalis* Marsh.

Marsh, O. C. 1872 E, p. 360.

Cope, E. D. 1883 DD.

Dollo, L. 1883 A, p. 16.

Fürbringer, M. 1888 A, p. 1476.

Grinnell, G. B. 1881 A.

Helm, F. 1891 A.

Huxley, T. H. 1876 B, xlii, p. 515.

Lydekker, R. 1891 A, p. 204.

1891 C.

1898 E, p. 140.

1896 A, p. 649.

Marsh, O. C. 1875 D.

1876 F, p. 509. (*Lestornis*, type *L. crassipes*.)

1877 B.

1877 E.

1879 C.

1880 G, p. 5.

1881 H.

1882 C.

1883 C, p. 52.

1897 A.

Menzies, M. 1887 A.

Nicholson and Lydekker 1889 A, p. 1224.

Osborn, H. F. 1900 G, p. 783.

Seeley, H. G. 1876 B, p. 510.

Shufeldt, R. W. 1888 A, p. 17.

1890 A, p. 169.

1890 C.

1893 A, p. 336.

1897 B.

Stejneger, L. 1885 A, p. 26.

Thompson, D'A. W. 1890 B.

Vetter, B. 1885 A.

Wiedersheim, R. 1884 A, p. 664.

Williston, S. W. 1896 A, pl. ii.

1898 B, p. 47, pls. v-viii.

Woodward, A. S. 1898 B, p. 235.

Woodward, H. 1885 C, p. 312.

1896 C, p. 361, pl. i.

Zittel, K. A. 1890 A, p. 827.

Hesperornis crassipes Marsh.

Marsh, O. C. 1876 F, p. 509. (*Lestornis*.)

Coues, E. 1884 A, p. 827.

Marsh, O. C. 1880 G, p. 196, pls. vii, xxvii, text fig. 40.

Nicholson and Lydekker 1889 A, p. 1225.

Stejneger, L. 1885 A, p. 30. (*Lestornis*.)

Thompson, D'A. W. 1890 B, p. 9.

Williston, S. W. 1898 B, p. 45.

Cretaceous (Niobrara); Kansas.

Hesperornis gracilis Marsh.

Marsh, O. C. 1876 F, p. 510.

Coues, E. 1884 A, p. 82.

Marsh, O. C. 1880 G, p. 197.

Williston, S. W. 1898 B, p. 46.

Cretaceous (Niobrara); Kansas.

Hesperornis regalis Marsh.

Marsh, O. C. 1872 A.

Cope, E. D. 1874 C, p. 17.

1875 E, p. 245.

Coues, E. 1872 B, p. 350.

1884 A, p. 826.

Dana, J. D. 1896 A, p. 850, figs. 1423-1429.

Grinnell, G. B. 1881 A, figs. 1, 3, 5, 6.

Huxley, T. H. 1876 C, p. 215.

Marsh, O. C. 1872 E, p. 360.

1873 D, p. 230.

1875 D, p. 404, pl. x.

1877 B, pl. v.

1880 G, p. 195, pls. i-vi; viii-xvi; xviii-xx;

text figs. 1, 4-6, 8-14, 21-27, 35, 36.

1883 C, p. 52, figs. 3-5, 7, 9-14, 17, 18.

1897 C, p. 527, pl. xxvi, fig. 2.

Nicholson and Lydekker 1889 A, p. 1225, figs. 1111-1113.

Shufeldt, R. W. 1890 A, p. 169.

Stejneger, L. 1885 A, p. 27, figs. 13-16.

Thompson, D'A. W. 1890 B, figures.

Wiedersheim, R. 1884 A, p. 663.

Williston, S. W. 1898 B, p. 45, pls. v, vi.

Woodward, A. S. 1898 B, p. 235, fig. 143.

Zittel, K. A. 1890 A, p. 816, figs. 704-707.

Cretaceous (Niobrara); Kansas.

BAPTORNIS Marsh. Type *B. advenus* Marsh.

Marsh, O. C. 1877 B, p. 86.
 Fürbringer, M. 1888 A.
 Lydekker, R. 1891 C.
 Zittel, K. A. 1890 A, p. 828.

***Baptornis advenus* Marsh.**

Marsh, O. C. 1877 B, p. 86.

Coues, E. 1884 A p. 826.
 Marsh, O. C. 1890 G, p. 192, figs. 37-39.
 Williston, S. W. 1898 B, p. 46.
 Zittel, K. A. 1890 A, p. 828.
 Cretaceous (Niobrara); Kansas.

CONIORNIS Marsh. Type *C. altus* Marsh.

Marsh, O. C. 1893 A, p. 81.

***Coniornis altus* Marsh.**

Marsh, O. C. 1893 A, p. 81, figs. 1-3.
 Cretaceous; Montana.

Superorder DROMÆOGNATHÆ Huxley.

Huxley, T. H. 1867 A, p. 418.

This suborder, as here recognized, is equivalent to the *Ratite* of Merrem plus the *Crypturi* (tinamous). It is the *Dromæognathæ* of Stejneger and the *Ratitæ* of Cope, 1898. Unless otherwise indicated, the following authorities are to be understood as employing the term *Ratitæ*.

Cope, E. D. 1889 R, p. 870.
 1891 N, p. 56.
 1898 B, p. 84.
 Cunningham, R. O. 1871 A.
 Fürbringer, M. 1885 A.
 1888 A.
 Gadow, H. 1885 A.
 1888 A.
 1891 A.
 1892 A, p. 237.
 1898 A, p. 30.
 Haeckel, E. 1895 A, p. 415.

Huxley, T. H. 1867 A, p. 418.

1872 A, p. 238.
 Menzies, M. 1887 A.
 Mivart, St. G. 1874 A.
 1877 A.
 1892 A, p. 258.
 Newton, A. 1868 A.
 Nicholson and Lydekker 1889 A, p. 122.
 Parker, W. K. 1866 A. ("Ostrich tribe.")
 1866 B. (*Struthionidæ*).
 1875 A.
 1889 A.
 1895 A.
 Pavlow, A. 1885 A, p. 113.
 Selenka, E. 1869 A.
 Steinmann and Döderlein 1890 A, p. 671.
 Stejneger, L. 1885 A, p. 31. (*Dromæognathæ*).
 Woodward, H. 1886 C, p. 370.
 Zittel, K. A. 1890 A, p. 825.

Order GASTORNITHES.

Cope, E. D. 1889 R, p. 870.
 1898 B, p. 85.

Nicholson and Lydekker 1889 A, p. 1228.
 Stejneger, L. 1885 A, p. 54.

GASTORNITHIDÆ.

Dollo, L. 1883 F, p. 297. (*Gastornis*).
 Edwards, A. M. 1868 A, i, p. 165, pls. xxviii, xxix. (*Gastornis*).
 Fürbringer, M. 1888 A, p. 1178.
 Hébert, E. 1855 A. (*Gastornis*).
 1855 B. (*Gastornis*).

Lydekker, R. 1891 A, p. 357.
 Newton, E. T. 1886 A, p. 143. (*Gastornis*).
 Nicholson and Lydekker 1889 A, p. 1228.
 Owen, R. 1856 F, p. 204, pl. iii. (*Gastornis*).
 Woodward, A. S. 1898 B, p. 241 (*Gastornis*).
 Zittel, K. A. 1890 A, p. 836.

DIATRYMA Cope. Type *D. giganteum* Cope.

Cope, E. D. 1876 B.
 1876 A.
 1877 K, p. 69.
 Nicholson and Lydekker 1889 A, p. 1229.
 Zittel, K. A. 1890 A, p. 829.

***Diatryma giganteum* Cope.**

Cope, E. D. 1876 B.
 1877 K, p. 70, pl. xxxii, figs. 23-25.
 Coues, E. 1884 A, p. 825. (*Gastornis*).
 Stejneger, L. 1885 A, p. 55.
 Eocene; New Mexico.

BARORNIS Marsh. Type *B. regens* Marsh.

Marsh, O. C. 1894 J.

***Barornis regens* Marsh.**

Marsh, O. C. 1894 J.
 Eocene; New Jersey.

Superorder EUORNITHES Stejneger.

Stejneger, L. 1885 A, p. 64.

This group is equivalent to that usually called *Carinatae*, with the tinamous and penguins removed. Unless otherwise indicated, the following authors employ the term *Carinatae*.

Cope, E. D. 1889 R, p. 870.

1891 N, p. 55. (Euornithes.)

1896 B, pp. 85, 94. (Euornithes.)

Fürbringer, M. 1885 A.

1888 A, p. 1141.

Gadow, H. 1888 A.

1891 A.

1892 A, p. 238.

1896 A, p. 31.

Haeckel, E. 1896 A, p. 413.

Huxley, T. H. 1867 A, p. 418.

1872 A, p. 234.

Lydekker, R. 1891 A, p. 1 (Carinatae); p. 2 (Euornithes).

Menzies, M. 1887 A.

Newton, A. 1868 A.

Nicholson and Lydekker 1889 A, p. 1229.

Parker, W. K. 1870 A.

1875 A.

Pavlov, A. 1886 A, p. 113.

Selenka, E. 1869 A.

Shufeldt, R. W. 1886 A.

1886 A.

1886 B.

Steinmann and Döderlein 1890 A, p. 673.

Woodward, A. S. 1886 C, p. 870.

Zittel, K. A. 1890 A, p. 834.

Order CECOMORPHÆ Huxley.

Huxley, T. H. 1867 A.

Cope, E. D. 1889 R, p. 871.

1896 B, p. 96.

Coues, E. 1884 A, p. 732 (Longipennes); p. 787 (Pygopodes).

Gadow, H. 1898 A, p. 31. (Colymbiformes.)

Huxley, T. H. 1872 A, p. 234.

Mivart, St. G. 1892 A, p. 276 (Pygopodiformes); p. 275 (Gaviæ); p. 276 (Tubinares).

Shufeldt, R. W. 1890 B. (Pygopodes.)

1890 C. (Pygopodes.)

1891 C. (Pygopodes.)

1892 C. (Pygopodes.)

Stejneger, L. 1885 A, p. 64.

Zittel, K. A. 1890 A, p. 838 (Podicipitiformes); p. 843 (Tubinares); p. 844 (Charadriiformes, part).

Superfamily COLYMBOIDEA Stejneger.

Stejneger, L. 1885 A, p. 66. (Colymboideæ.)

Shufeldt, R. W. 1892 C. (Podicipoldeæ.)

COLYMBIDÆ.

Beddard, F. E. 1897 A, p. 468. (Colymbi.)

Coues E. 1866 A. (Colymbus, but not as here recognized.)

1884 A, p. 789 (Colymbidæ); p. 792 (Podicipidæ).

Edwards, A. M. 1868 A, p. 278. (Colymbides.)

Fürbringer, M. 1888 A, p. 1153. (Colymbidæ, Podicipidæ.)

1890 B. (Colymbidæ, Podicipidæ.)

Fürbringer, M. 1896 A, p. 508. (Podicipidæ.)

Gadow, H. 1891 A.

Magnus, H. 1869 A.

Parker, W. K. 1868 A, p. 148. (Podicipinæ.)

Reichenow, A. 1871 A.

Selenka, E. 1869 A.

Shufeldt, R. W. 1890 A. (Podicipidæ.)

1892 C. (Podicipidæ.)

Stejneger, L. 1885 A, p. 66.

COLYMBUS Linn. Type *C. cristatus* Linn.

Beddard, F. E. 1897 A, p. 468.

Brandt, J. F. 1840 A, p. 161.

Edwards, A. M. 1868 A, p. 278.

Gadow, H. 1891 A, pl. ix, figs. 4-6; pl. xlii, fig. 6. (Podiceps.)

Giebel, C. G. 1866 A, p. 29. (On Podiceps.)

Lydekker, R. 1891 C.

Magnus, H. 1869 A. (On Podiceps.)

Owen, R. 1856 F, p. 212.

Shufeldt, R. W. 1890 A.

1892 C.

1894 B.

***Colymbus auritus* Linn.**

Brandt, J. F. 1840 A, p. 204, pl. xiv. (Podiceps.)

Shufeldt, R. W. 1891 B, p. 818.

1892 D, p. 396.

1897 A, p. 646.

Recent; Northern Hemisphere: Pleistocene; Oregon, Tennessee.

***Colymbus holboellii* (Reinh.).**

Shufeldt, R. W. 1891 B, p. 818.

1892 D, p. 396.

Recent; North America: Pleistocene (Equus beds); Oregon.

***Colymbus nigricollis* (Brehm.).**

Cope, E. D. 1878 H, p. 389. (Podiceps "near californicus.")

1889 F. (Podiceps californicus.)

1889 S, p. 980. (Podiceps californicus.)

Shufeldt, R. W. 1890 A, p. 170, text figs. 1, 2.

1891 B, p. 818. (C. n. californicus.)

1892 D, p. 396. (C. n. californicus.)

Recent; Western North America: Pleistocene (Equus beds); Oregon.

ÆCHMOPHORUS Coues. Type *Podiceps occidentalis* Lawr.

Coues, E. 1862, Proc. Acad. Nat. Sci. Phila., p. 229.
1884 A, p. 793.

Æchmophorus occidentalis (Lawr.).

Cope, E. D. 1878 H, p. 389. (Podiceps.)
1889 F. (Podiceps.)

Cope, E. D. 1889 S, pp. 978, 980. (Podiceps.)

Coues, E. 1884 A, p. 793.

Shufeldt, R. W. 1891 B, p. 818.

1892 D, p. 396.

Recent; Western North America: Pleistocene;
Oregon.

PODILYMBUS Lesson. Type *Colymbus podiceps* Linn.

Lesson, 1831, Traité d'Orn., p. 596.

Coues, E. 1884 A, p. 796.

Shufeldt, R. W. 1890 A, p. 173.

Podilymbus podiceps (Linn.).

Cope, E. D. 1878 H, p. 389.
1889 F

Cope, E. D. 1889 S, p. 980.

Coues, E. 1884 A, p. 797. (P. podiceps.)

Shufeldt, R. W. 1891 B, p. 818.

1892 D, p. 396.

Recent; North America: Pleistocene; Ore-
gon.

Superfamily *ALCOIDEA* Stejneger.

Stejneger, J. 1885 A, p. 68. (Alcoideæ.)

ALCIDÆ.

Blyth, E. 1837 A.

Coues, E. 1884 A, p. 797.

Edwards, A. M. 1868 A, p. 278.

Fürbringer, M. 1888 A, p. 1148.

Gadow, H. 1891 A.

Huxley, T. H. 1867 A, p. 458.

Owen, R. 1856 F, p. 212. (Alca.)

Parker, W. K. 1868 A, p. 146. (Alcinæ.)

Reichenow, A. 1871 A.

Selenka, E. 1869 A.

Shufeldt, R. W. 1888 A.

1889 B.

1889 C.

1890 A.

1891 C.

PLAUTUS Brünnich. Type *Alca impennis* Linn.

Brünnich, 1772, Zool. Fundamenta, p. 78.

The genus *Plautus* is included by many authors in *Alca*; hence references are given to the literature of the last-named genus.

Coues, E. 1884 A, p. 819. (Alcæ.)

Glebel, C. G. 1866 A, p. 29. (Alca.)

Lucas, F. A. 1888 A.

Menzies, M. 1887 A.

Newton, A. 1875 A, p. 733. (Alca.)

Owen, R. 1856 F, p. 212. (Alca.)

Shufeldt, R. W. 1888 A. (Alca, Plautus.)

1889 B. (Alca.)

1889 C. (Alca.)

Plautus impennis (Linn.).

American Naturalist 1869 A. (Alca.)

Blasius, W. 1884 A. (Alca.)

Blyth, E. 1837 A. (Alca.)

Champley, R. 1864 A. (Alca.)

Coues, E. 1869 A. (Alca.)

Coues, E. 1884 A, p. 819, fig. 561. (Alca.)

Lucas, F. A. 1888 A.

1890 C, p. 493, pls. lxxii, lxxiii. ("Great auk.")

Menzies, M. 1887 A.

Newton, A. 1861 A. (Alca.)

1870 A. (Alca.)

1875 A, p. 731. (Alca.)

1879 A. (Alca.)

Orton, J. 1869 A. (Alca.)

Owen, R. 1864 A. (Alca.)

1866 C, pls. i-iii. (Alca.)

Preyer, W. 1862 A.

Selenka, E. 1869 A, pl. ix, figs. 1, 2. (Alca.)

Shufeldt, R. W. 1888 A, pl. v, figs. 24, 25.

Steenstrup, J. 1855 A, plate.

Stejneger, L. 1885 A, p. 72, fig. 82.

Wyman, J. 1867 A.

Recently extinct; once an inhabitant of
Newfoundland, Iceland, Denmark, etc.

URIA Brisson. Type *Colymbus troile* Linn.

Coues, E. 1884 A, p. 814 (Uria); p. 816 (Lomvia).

Selenka, E. 1869 A, pl. ix, fig. 7; pl. lvii, fig. 10.

Shufeldt, R. W. 1889 B, p. 165, pl. vii; p. 537, text
figs. 1, 2, 4, 5, 6, 8.

1889 C.

Uria affinis (Marsh.).

Marsh, O. C. 1872 J, p. 259. (Catarractes.)

Coues, E. 1872 B, p. 350. (Catarractes.)

1884 A, p. 825. (Lomvia.)

Marsh, O. C. 1870 A, p. 214. (No name.)

Pleistocene; New Jersey.

Uria antiqua (Marsh.).

Marsh, O. C. 1870 A, p. 213. (Catarractes.)

Cope, E. D. 1869 M (1870), p. 237. (Catarractes.)

1875 V, p. 41. (Catarractes.)

Coues, E. 1872 B, p. 350. (Catarractes.)

1884 A, p. 825. (Lomvia.)

Miocene; North Carolina.

Superfamily LAROIDEA Stejneger.

Stejneger, L. 1885 A, p. 74. (Laroidem.)

LARIDÆ.

Brandt, J. F. 1840 A, p. 165.
 Coues, E. 1884 A, p. 733.
 Edwards, A. M. 1868 A, p. 302.
 Fürbringer, M. 1888 A, p. 1158.
 Gadow, H. 1891 A.
 1898 A, p. 35. (Lari.)
 Parker, W. K. 1868 A, p. 153. (Larinae.)

Reichenow, A. 1871 A.
 Selenka, E. 1869 A.
 Shufeldt, R. W. 1890 A.
 1890 B.
 1891 C.
 Stejneger, L. 1885 A, p. 77.
 Zittel, K. A. 1890 A, p. 845.

LARUS Linnæus. Type *Larus canus* Linn.

Coues, E. 1884 A, p. 740.
 Edwards, A. M. 1868 A, p. 305.
 Huxley, T. H. 1867 A, p. 430, fig. 11.
 Owen, R. 1856 F, p. 212.
 Selenka, E. 1869 A, pl. xv, fig. 12; pl. xvii, fig. 12, 16.
 Shufeldt, R. W. 1888 A, pl. II, figs. 2-12; pl. IV, fig. 21.
 1889 B, pl. VII, fig. 6; pl. IX, fig. 12; pl. X, fig. 18; pl. XI, fig. 26.
 1890 A, p. 545, figures.
 1890 B, p. 66, with figures.
 1891 C.

***Larus argentatus* Brunn.**

Coues, E. 1884 A, p. 743.
 Shufeldt, R. W. 1891 B, p. 818. (L. a. smithsonianus.)
 1892 D, p. 397. (L. a. smithsonianus.)
 Recent; North America: Pleistocene; Oregon.

***Larus californicus*? Lawr.**

Coues, E. 1884 A, p. 745.

Shufeldt, R. W. 1891 B, p. 818.
 1892 D, p. 398.
 Recent; Western North America: Pleistocene; Oregon.

***Larus oregonus* Shufeldt.**

Shufeldt, R. W. 1892 D, p. 398, pl. xv, fig. 3.
 1891 B, p. 818. (No description.)
 Pleistocene; Oregon.

***Larus philadelphia* (Ord).**

Coues, E. 1884 A, p. 751. (Chroicocephalus.)
 Shufeldt, R. W. 1891 B, p. 818.
 1892 D, p. 399.
 Recent; North America: Pleistocene; Oregon

***Larus robustus* Shufeldt.**

Shufeldt, R. W. 1891 B, p. 818.
 1892 D, p. 398, pl. xv, figs. 1, 2.
 Pleistocene; Oregon.

XEMA Leach. Type *Larus sabinii* (Sab.).

Coues, E. 1884 A, p. 753.
 Shufeldt, R. W. 1893 A.

***Xema sabinii* (Sab.).**

Coues, E. 1885 A, p. 753.

Shufeldt, R. W. 1891 B, p. 818.
 1892 D, p. 399.
 1893 A.
 Recent; Arctic America and Europe: Pleistocene; Oregon.

HYDROCHELIDON Boie. Type *Sterna nigra* Linn.

Coues, E. 1884 A, p. 770.

***Hydrochelidon nigra* (Linn.).**

Coues, E. 1884 A, p. 770. (H. lariformis.)

Shufeldt, R. W. 1891 B, p. 818. (H. n. surinamensis.)
 1892 D, p. 399. (H. n. surinamensis.)
 Recent; Old and New Worlds: Pleistocene; Oregon.

STERNA Linn. Type *Sterna caspia* Pall.

Brandt, J. F. 1840 A, p. 218.
 Coues, E. 1884 A, p. 756.
 Selenka, E. 1869 A, pl. VIII, fig. 13.
 Shufeldt, R. W. 1893 A.

***Sterna elegans*? Gamb.**

Coues, E. 1884 A, p. 760.
 Shufeldt, R. W. 1891 B, p. 818.
 1892 D, p. 399.

Recent; New England to California and Brazil: Pleistocene; Oregon.

***Sterna forsteri*? Nutt.**

Coues, E. 1884 A, p. 763.
 Shufeldt, R. W. 1891 B, p. 818. (S. forsteri.)
 1892 D, p. 399. (S. forsteri.)
 Recent; North America: Pleistocene; Oregon.

Superfamily PROCELLAROIDEA Stejneger.

Stejneger, L. 1885 A, p. 84. (Procellaroides.)
Beddard, F. E. 1897 A, p. 468.
Coues, E. 1884 A, p. 773. (Tubinares.)
Fürbringer, M. 1888 A, p. 1162. (Tubinares.)
Gadow, H. 1898 A, p. 32. (Procellariæ.)
Mivart, St. G. 1892 A, p. 276. (Tubinares.)

Nicholson and Lydekker 1899 A, p. 1232. (Tubinares.)
Pycraft, W. P. 1899 A, p. 381. (Tubinares.)
Shufeldt, R. W. 1888 E. (Tubinares.)
Zittel, K. A. 1890 A, p. 843. (Tubinares.)

PROCELLARIIDÆ.

Coues, E. 1884 A, p. 773.
Fürbringer, M. 1888 A, p. 1162.

Pycraft, W. P. 1899 A, p. 402.
Stejneger, L. 1885 A, p. 88.

Puffinus Brisson. Type *Procellaria puffinus* Brunn.

Coues, E. 1884 A, p. 783.
Pycraft, W. P. 1899 A, p. 382.
Selenka, E. 1869 A, pl. xvii, fig. 15.

Puffinus conradi Marsh.

Marsh, O. C. 1870 A, p. 212.

Cope, E. D. 1869 M (1870), p. 237.
Coues, E. 1872 B, p. 350.
 1884 A, p. 825.
Marsh, O. C. 1870 G.
 Miocene; Maryland.

Order GRALLÆ.

Beddard, F. E. 1897 A, p. 469.
Cope, E. D. 1898 B, p. 89.
Coues, E. 1884 A, p. 596 (Limicolæ); p. 665 (Alectorides).
Fürbringer, M. 1888 A, p. 1235 (Fulicaræ); p. 1420 (Limicolæ).
Gadow, H. 1898 A, p. 35. (Charadriiformes.)
Haeckel, E. 1895 A, p. 414. (Charadriornithes.)
Huxley, T. H. 1867 A, p. 457. (Charadriomorphæ, Geranomorphæ.)
 1872 A, p. 234. (Charadriomorphæ, Geranomorphæ.)

Mivart, St. G. 1892 A, p. 273 (Alectorides); p. 275 (Limicolæ).
Owen, R. 1856 F, p. 208.
Parker, W. K. 1868 A, p. 163.
Selenka, E. 1869 A. (Limicolæ, etc.)
Shufeldt, R. W. 1888 A. (> Limicolæ.)
 1884 A. (> Limicolæ.)
 1894 A.
Stejneger, L. 1885 A, p. 91.

Superfamily SCOLOPACOIDEA Stejneger.

Stejneger, L. 1885 A, p. 94. (Scolopacoides.)
Gadow, H. 1898 A, p. 35. (Limicolæ.)

Huxley, T. H. 1867 A, p. 457. (Charadriomorphæ.)

CHARADRIIDÆ.

Coues, E. 1885 A, p. 597.
Edwards, A. M. 1868 A, p. 367. (Totanides, in part.)
Fürbringer, M. 1888 A.

Selenka, E. 1869 A.
Stejneger, L. 1885 A, p. 98.
Zittel, K. A. 1890 A, p. 844.

Charadrius Linn. Type *Tringa squatarola* Linn.

Cope, E. D. 1884 O, p. 754.
Coues, E. 1884 A, p. 599.
Edwards, A. M. 1868 A, p. 375.
Huxley, T. H. 1867 A, p. 427, figs. 6-8.
Shufeldt, R. W. 1888 A, pl. ii, fig. 10.
 1890 A, pl. xli, figs. 5, 6.
 1891 C.

Charadrius sheppardianus Cope.

Cope, E. D. 1881 B.
 1884 A, p. 823.
 1884 O, p. 755, pl. lix, fig. 5.
Coues, E. 1884 A, p. 823.
Zittel, K. A. 1890 A, p. 844.
 Eocene; Colorado.

SCOLOPACIDÆ.

Coues, E. 1884 A, p. 612 (Phalaropodidæ); p. 614 (Scolopacidæ).
Edwards, A. M. 1868 A, p. 367. (Totanides, part.)
Fürbringer, M. 1888 A.
Gadow, H. 1891 A.
Parker, W. K. 1868 A, p. 155. (Scolopacinae.)

Reichenow, A. 1871 A. (Scolopacidae, Phalaropidae.)
Shufeldt, R. W. 1884 A. (Numenius.)
Stejneger, L. 1885 A, p. 105.
Zittel, K. A. 1890 A, p. 844.

PALÆOTRINGA Marsh. Type *P. littoralis* Marsh.

Marsh, O. C. 1870 A, p. 208.
1870 G.

Zittel, K. A. 1890 A, p. 844.

Palæotringa littoralis Marsh.

Marsh, O. C. 1870 A, p. 208.

Cope, E. D. 1869 M (1870), p. 238.
1875 E, p. 246.

Coues, E. 1872 B, p. 349.
1884 A, p. 828. (*P. littoralis*.)

Marsh, O. C. 1870 G.

1873 D, p. 229.

1880 G, p. 199.

Cretaceous; New Jersey.

Palæotringa vagans Marsh.

Marsh, O. C. 1872 E, p. 365.

Coues, E. 1872 B, p. 349.
1884 A, p. 828.

Marsh, O. C. 1873 D, p. 229.

1880 G, p. 200.

Cretaceous; New Jersey.

Palæotringa vetus Marsh.

Marsh, O. C. 1870 A, p. 209.

Cope, E. D. 1869 M (1870), p. 238.
1875 E, p. 246.

Coues, E. 1872 B, p. 349.

1884 A, p. 828.

Harlan, R. 1835 B, p. 280. ("Scolopax.")

Leidy, J. 1851 H, p. 330. ("Scolopax.")

1865 A, p. 2. ("Scolopax.")

1866 B, p. 237. ("Scolopax.")

Marsh, O. C. 1870 G.

1873 E, p. 229.

1880 G, p. 200.

Morton, S. G. 1834 A, p. 32. (No name.)
Cretaceous; New Jersey.

PHALAROPUS Brisson. Type *Tringa lobata* Linn.

Coues, E. 1884 A, p. 612 (*Steganopus*); p. 614 (*Lobipes*).

Edwards, A. M. 1868 A, p. 375.

Phalaropus lobatus (Linn.)

Coues, E. 1884 A, p. 613. (*Lobipes hyperboreus*.)

Shufeldt, R. W. 1891 B, p. 820.

1892 D, p. 413.

Recent; Northern Hemisphere: Pleistocene;
Oregon.

Superfamily GRUIOIDEA *Stejneger*.

Stejneger L. 1885 A, p. 121. (Gruloidæ.)

Beddard, F. E. 1897 A, p. 469. (Grues.)

Gadow, H. 1896 A, p. 34. (Gruliformes.)

Huxley, T. H. 1867 A, p. 457. (Geranomorphæ.)

Selenka, E. 1869 A.

Shufeldt, R. W. 1894 A. (Gruloidæ.)

GRUIDÆ.

Coues, E. 1884 A, p. 666.

Edwards, A. M. 1871 A, p. 1. (Gruides.)

Fürbringer, M. 1888 A, p. 1208.

Gadow, H. 1891 A.

Owen, R. 1856 F, p. 213.

Parker, W. K. 1868 A, p. 158. (Gruinæ.)

Selenka, E. 1869 A.

Shufeldt, R. W. 1894 A.

Stejneger, L. 1885 A, p. 123.

Zittel, K. A. 1890 A, p. 846.

GRUS Pallas. Type *Ardeu grus* Linn.

Coues, E. 1884 A, p. 666.

Edwards, A. M. 1871 A, p. 1.

Huxley, T. H. 1867 A, p. 426, fig. 9.

Owen, R. 1856 F, p. 209.

Parker, W. K. 1868 A, p. 158.

Selenka, E. 1869 A, pl. x, fig. 8, pl. xi, fig. 14.

Shufeldt, R. W. 1894 A.

Grus haydeni Marsh.

Marsh, O. C. 1870 A, p. 214.

Cope, E. D. 1869 M (1870), p. 237.

Coues, E. 1872 B, p. 348.

1884 A, p. 823.

King, C. 1878 A, p. 430.

Marsh, O. C. 1870 G.

Pliocene (?); Nebraska.

Grus proavus Marsh.

Marsh, O. C. 1872 J, p. 261.

Coues, E. 1872 B, p. 348.

1884 A, p. 823.

Pleistocene; New Jersey.

ALETORNIS Marsh. Type *A. nobilis* Marsh.

Marsh, O. C. 1872 J, p. 256.

Fürbringer, M. 1888 A.

Zittel, K. A. 1890 A, p. 846.

Aletornis bellus Marsh.

Marsh, O. C. 1872 J, p. 258.

Coues, E. 1872 B, p. 349.

1884 A, p. 824.

King, C. 1878 A, p. 404.

Eocene (Bridger); Wyoming.

Aletornis gracilis Marsh.

Marsh O. C. 1872 J, p. 258.

Coues, E. 1872 B, p. 348.

1884 A, p. 824.

King, C. 1878 A, p. 404.

Eocene (Bridger); Wyoming.

Aletornis nobilis Marsh.*Marsh, O. C.* 1872 J, p. 256.

Coues, E. 1872 B, p. 348.

1884 A, p. 823.

King, C. 1878 A, p. 404.

Eocene (Bridger); Wyoming.

Aletornis pernix Marsh.*Marsh, O. C.* 1872 J, p. 256.

Coues, E. 1872 B, p. 348.

Coues, E. 1884 A, p. 824.

King, C. 1878 A, p. 404.

Eocene (Bridger); Wyoming.

Aletornis venustus Marsh.*Marsh, O. C.* 1872 J, p. 257.

Coues, E. 1872 B, p. 348.

1884 A, p. 824.

King, C. 1878 A, p. 404.

Eocene (Bridger); Wyoming.

RALLIDÆ.

Coues, E. 1884 A, p. 669.

Edwards, A. M. 1871 A, p. 110.

Fürbringer, M. 1888 A, p. 1235.

Gadow, H. 1891 A.

Parker, W. K. 1868 A, p. 161. (Rallinæ.)

Selenka E. 1869 A.

Shufeldt, R. W. 1888 B. (On *Pomana*.)

1894 A.

Stejneger, L. 1885 A, p. 127.

Zittel, K. A. 1890 A, p. 846.

CRECCOIDES Shufeldt. Type *C. osbornii* Shufeldt.*Shufeldt, R. W.* 1892 B, p. 253.

1892 D, p. 411, footnote. (Creccoides.)

1892, in Cope, E. D. 1892 J, p. 125.

Creccoides osbornii Shufeldt.*Shufeldt, R. W.* 1892 B, p. 253.*Shufeldt, R. W.* 1892, in Cope E. D. 1892 J, p. 125.

Pleistocene; Texas.

TELMATORNIS Marsh. Type *T. priscus* Marsh.*Marsh, O. C.* 1870 A, p. 210.

Fürbringer, M. 1888 A, p. 1235.

Marsh, O. C. 1870 G.

Zittel, K. A. 1890 A, p. 846.

Telmatornis affinis Marsh.*Marsh, O. C.* 1870 A, p. 211.

Cope, E. D. 1869 M (1870), p. 238.

1875 E, p. 246.

Coues, E. 1872 B, p. 349.

1884 A, p. 829.

Marsh, O. C. 1870 G.

1873 D, p. 229.

Marsh, O. C. 1880 G, p. 201.

Cretaceous; New Jersey.

Telmatornis priscus Marsh.*Marsh, O. C.* 1870 A, p. 210.

Cope, E. D. 1869 M (1870), p. 238.

1875 E, p. 246.

Coues, E. 1872 B, p. 349.

1884 A, p. 829.

Marsh, O. C. 1870 G.

1873 D, p. 229.

1880 G, p. 200.

Cretaceous; New Jersey.

FULICA Linn. Type *F. atra* Linn.

Coues, E. 1884 A, p. 676.

Fürbringer, M. 1888 A, p. 1235.

Zittel, K. A. 1890 A, p. 846.

Fulica americana Gmel.

Cope, E. D. 1889 F.

1889 S, p. 980.

Coues, E. 1884 A, p. 676.

Shufeldt, R. W. 1891 B, p. 819.

1892 D, p. 411.

Recent; North America: Pleistocene; Oregon.

Fulica minor Shufeldt.*Shufeldt, R. W.* 1892 D, p. 412, pl. xvii, fig. 32.

1891 B, p. 820. (No description).

Pleistocene; Oregon.

Order CHENOMORPHÆ Huxley.

Huxley, T. H. 1867 A, p. 460.

Cope, E. D. 1898 B, p. 88.

Coues, E. 1884 A, p. 677. (Lamelliostres.)

Edwards, A. M. 1868 A, i, p. 127. (Lamelliostres.)

Fürbringer, M. 1888 A, p. 1173 (Anseres); p. 1184 (Phenicopteridae).

Gadow, H. 1891 A. (Lamelliostres.)

1898 A, p. 33. (Anseriformes.)

Huxley, T. H. 1872 A, p. 234. (Chenomorphæ.)

Mivart, St. G. 1892 A, p. 277. (Lamelliostres.)

Owen, R. 1856 F, p. 211. (Natatores.)

Selenka, E. 1869 A. (Lamelliostres.)

Shufeldt, R. W. 1889 A. (Anseres.)

Stejneger, L. 1885 A, p. 132.

Zittel, K. A. 1890 A, p. 836 (Anseriformes); p. 839

(Ciconiiformes).

Superfamily ANATOIDEA Stejneger.

Stejneger, L. 1885 A, p. 136. (Anatoides.)
 Gadow, H. 1896 A, p. 33. (Anseres.)
 Giebel, C. G. 1866 A, p. 28. (Anseres.)

Magnus, H. 1869 A. (Natatores.)
 Reichenow, A. 1871 A. (Anseres.)
 Shufeldt, R. W. 1889 A. (Anseres.)

ANATIDÆ.

Beddard, F. E. 1897 A, p. 466.
 Coues, E. 1884 A, p. 679.
 Gadow, H. 1891 A.
 Owen, R. 1866 F, p. 213.

Parker, W. K. 1868 A, p. 152. (Anatinae.)
 Selenka, E. 1869 A.
 Shufeldt, R. W. 1889 A.

LOPHODYTES Reichenbach. Type *Mergus cucullatus* Linn.

Coues, E. 1884 A, p. 716.

Lophodytes cucullatus (Linn.).

Coues, E. 1884 A, p. 718. (*Mergus*.)

Shufeldt, R. W. 1891 B, p. 818.

1892 D, p. 402.

Recent; North America: Pleistocene; Oregon.

ANAS Linn. Type *A. boschas* Linn.

Coues, E. 1884 A, p. 691.
 Gadow, H. 1891 A, pl. iv, fig. 2.
 Giebel, C. G. 1866 A, p. 28.
 Selenka, E. 1869 A.
 Shufeldt, R. W. 1889 A.
 Zittel, K. A. 1890 A, p. 637.

Anas americana Gmel.

Coues, E. 1884 A, p. 694. (*Mareca*.)
 Shufeldt, R. W. 1891 B, p. 818.

1892 D, p. 403.

Recent; North America: Pleistocene; Oregon.

Anas boschas Linn.

Coues, E. 1884 A, p. 691. (*A. boschas*.)
 Selenka, E. 1869 A, pl. II, fig. 9.
 Shufeldt, R. W. 1889 A, p. 233.
 1891 B, p. 818.
 1892 D, p. 403.

Recent; Northern Hemisphere: Pleistocene; Oregon.

Anas carolinensis Gmel.

Coues, E. 1884 A, p. 695. (*Querquedula*.)
 Shufeldt, R. W. 1891 B, p. 818.

1892 D, p. 403.

Recent; North America: Pleistocene; Oregon.

Anas cyanoptera ? Vieill. .

Coues, E. 1884 A, p. 696. (*Querquedula*.)
 Shufeldt, R. W. 1891 D, p. 818.

1892 D, p. 404.

Recent; South America, Western North America: Pleistocene; Oregon.

Anas discors Linn.

Coues, E. 1884 A, p. 696. (*Querquedula*.)
 Shufeldt, R. W. 1889 A.

1891 B, p. 818.

1892 D, p. 403.

Recent; North America: Pleistocene; Oregon.

SPATULA Boie. Type *Anas clypeata* Linn.

Coues, E. 1884 A, p. 696.
 Shufeldt, R. W. 1889 A, p. 230.
 Zittel, K. A. 1890 A, p. 838.

Spatula clypeata (Linn.).

Coues, E. 1884 A, p. 696.

Selenka, E. 1869 A, pl. x, fig. 5. (*Anas*.)
 Shufeldt, R. W. 1889 A, p. 230, figs. 15, 16, 20, 22-25.
 1891 B, p. 819.
 1892 D, p. 404.

Recent; North America, Europe, Asia: Pleistocene; Oregon.

DAFLA Stephens.

Coues, E. 1884 A, p. 692.

Dafila acuta (Linn.).

Coues, E. 1884 A, p. 692.

Shufeldt, R. W. 1891 B, p. 819.

1892 D, p. 404.

Recent; Northern Hemisphere: Pleistocene; Oregon.

AIX Boie. Type *Anas sponsa* Linn.

Coues, E. 1884 A, p. 697.

Aix sponsa (Linn.).

Coues, E. 1884 A, p. 698.

Shufeldt, R. W. 1891 B, p. 819.

1892 D, p. 405.

Recent; North America: Pleistocene; Oregon.

ATHYA Boie. Type *Anas ferina* Linn.

Coues, E. 1884 A, p. 701. (Fuligula.)

Athya marila.

Coues, E. 1884 A, p. 701. (Fuligula.)

Shufeldt, R. W. 1891 B, p. 819.

1892 D, p. 405.

Recent; North America: Pleistocene; Oregon.

GLAUCIONETTA Stejneger. Type *Anas clangula* Linn.

Coues, E. 1884 A, p. 704. (<Clangula.)

Shufeldt, R. W. 1889 A, p. 235.

Glaucionetta islandica (Gmel.).

Coues, E. 1884 A, p. 704. (Clangula.)

Shufeldt, R. W. 1889 A, p. 235, figs. 19, 21, 26.

1891 B, p. 819.

1892 D, p. 405.

Recent; North America and Northern Europe: Pleistocene; Oregon.

CLANGULA Leach. Type *Anas glacialis* Linn.

Coues, E. 1884 A, p. 704 (Clangula); p. 706 (Harelda).

Clangula hyemalis (Linn.).

Coues, E. 1884 A, p. 706. (Harelda glacialis.)

Shufeldt, R. W. 1891 B, p. 819.

1892 D, p. 405.

Recent; Northern Hemisphere: Pleistocene; Oregon.

CHEN Boie.

Coues, E. 1884 A, p. 685.

Chen hyperborea (Pall.).

Coues, E. 1884 A, p. 685. (C. hyperboreus.)

Shufeldt, R. W. 1891 B, p. 819.

1892 D, p. 409.

Recent; North America: Pleistocene; Oregon.

ANSER Brisson. Type *Anas anser* Linn.

Coues, E. 1884 A, p. 684.

Owen, R. 1856 F, p. 211.

Selenka, E. 1869 A, pl. xvii, fig. 10.

Shufeldt, R. W. 1889 A.

Coues, E. 1884 A, p. 684.

Shufeldt, R. W. 1891 B, p. 819.

1892 D, p. 408.

Recent, Northern regions: Pleistocene; Oregon.

Anser albifrons (Gmel.).

Cope, E. D. 1878 H, p. 389.

1889 F.

1889 S, p. 980.

Anser condoni Shufeldt.

Shufeldt, R. W. 1892 D, p. 406, pl. xvi, figs. 19, 26, 27.

1891 A, p. 819. (Name only.)

Pleistocene; Oregon.

BRANTA Scopoli. Type *Anas bernicla* Linn.

Coues, E. 1884 A, p. 686. (Bernicla.)

Shufeldt, R. W. 1889 A.

Branta canadensis (Linn.).

Cope, E. D. 1878 H, p. 389. (Anser.)

1889 F. (Anser.)

1889 S, pp. 978, 980. (Anser.)

Coues, E. 1884 A, p. 688. (Bernicla.)

Shufeldt, R. W. 1889 A, p. 248, figs. 27-30.

1891 B, p. 819.

1892 D, p. 408.

Recent; North America: Pleistocene; Oregon.

Branta hypsibata (Cope).

Cope, E. D. 1878 H, p. 387. (Anser.)

1889 F.

Cope, E. D. 1889 S, p. 980.

Coues, E. 1884 A, p. 824. (Bernicla hypsibates.)

Shufeldt, R. W. 1891 B, p. 819.

1892 D, p. 407.

Zittel, K. A. 1890 A, p. 838.

Pleistocene; Oregon.

Branta propinqua Shufeldt.

Shufeldt, R. W. 1892 D, p. 407, pl. xv, fig. 17.

Cope, E. D. 1878 H, p. 389. (Anser, "near nigricans.")

1889 F. (Anser, "near nigricans.")

1889 S, p. 890. Anser, "near nigricans.")

Shufeldt, R. W. 1891 B, p. 819.

Pleistocene; Oregon.

OLOR Wagler. Type *Anas cygnus* Linn.

Coues, E. 1884 A, p. 682. (Cygnus.)

Selenka, E. 1869 A, pl. x, figs. 2, 3. (Cygnus.)

Shufeldt, R. W. 1889 A, p. 233.

Olor paloregonus Cope.

Cope, E. D. 1878 H, p. 388. (Cygnus.)

Cope, E. D. 1889 F. (Cygnus.)

1889 S, pp. 978, 980. (Cygnus.)

Coues, E. 1884 A, p. 824. (Cygnus.)

Shufeldt, R. W. 1891 B, p. 819.

1892 D, p. 409, pl. xvi, figs. 18, 21, 25.

Pleistocene; Oregon.

LAORNIS Marsh. Type *L. edwardsianus* Marsh.

Marsh, O. C. 1870 A, p. 206.

Fürbringer, M. 1888 A, pp. 1141, 1159, 1174.

Marsh, O. C. 1870 G.

Stejneger, L. 1885 A, p. 30.

Zittel, K. A. 1890 A, p. 837.

Laornis edwardsianus Marsh.

Marsh, O. C. 1870 A, p. 206.

Cope, E. D. 1869 M (1870), p. 237.

Cope, E. D. 1875 E, p. 245.

Coues, E. 1872 B, p. 350.

1884 A, p. 828.

Marsh, O. C. 1870 G.

1873 D, p. 230.

1880 G, p. 199.

Cretaceous; New Jersey.

Superfamily PHENICOPTEROIDEA Stejneger.

Stejneger, L. 1885 A, p. 153. (Phenicopteroideæ.)

Gadow, H. 1898 A, p. 33. (Phenicopteri.)

Huxley, T. H. 1867 A, p. 460. (Amphimorphæ.)

1872 A, p. 234. (Amphimorphæ.)

PHENICOPTERIDÆ.

Coues, E. 1884 A, p. 678.

Edwards, A. M. 1871 A, p. 53. (Phenicopterideæ.)

Fürbringer, M. 1888 A, p. 1184.

Gadow, H. 1891 A.

Parker, W. K. 1868 A, p. 166. (Phenicopterinæ.)

Reichenow, A. 1871 A.

Seebohm, H. 1889 A. (Phenicopteri.)

Selenka, E. 1869 A.

Stejneger, L. 1885 A, p. 154.

Zittel, K. A. 1890 A, p. 839. (Phenicopteri.)

PHENICOPTERUS Linn. Type *P. ruber* Linn.

Coues, E. 1884 A, p. 678.

Edwards, A. M. 1871 A, p. 53.

Fürbringer, M. 1888 A.

Gadow, H. 1877 A.

1891 A, pl. lvii, fig. 20.

Parker, W. K. 1869 B.

Selenka, E. 1869 A.

Phenicopterus copei Shufeldt.

Shufeldt, R. W. 1892 D, p. 410, pl. xv, fig. 13; pl.

xvii, figs. 28, 29, 38.

1891 B, p. 820.

Pleistocene; Oregon.

Order HERODIL.

Beddard, F. E. 1897 A, p. 469. (Herodionæ.)

Cope, E. D. 1898 B, p. 88.

Coues, E. 1884 A, p. 647. (Herodionæ.)

Fürbringer, M. 1888 A, p. 1187. (Pelargo-Herodil.)

Gadow, H. 1891 A.

Huxley, T. H. 1867 A, p. 461. (Pelargomorphæ.)

1872 A, p. 234. (Pelargomorphæ.)

Mivart, St. G. 1892 A, p. 272. (Herodionæ.)

Seebohm, H. 1889 A. (Herodionæ.)

Selenka, E. 1869 A.

Stejneger, L. 1885 A, p. 157.

Zittel, K. A. 1890 A, p. 840. (Pelargo-Herodil.)

Superfamily ARDEOIDEA Stejneger.

Stejneger, L. 1885 A, p. 162. (Ardeoidæ.)

Gadow, H. 1898 A, p. 32. (Ardeæ.)

ARDEIDÆ.

Coues, E. 1884 A, p. 654.

Edwards, A. M. 1871 A, p. 88. ("Ardeidæ.")

Fürbringer, M. 1888 A.

Gadow, H. 1891 A.

Giebel, C. G. 1866 A, p. 27.

Huxley, T. H. 1867 A, p. 439.

Magnus, H. 1869 A.

Parker, W. K. 1868 A, p. 163. (Ardeinæ.)

Reichenow, A. 1871 A.

Seebohm, H. 1889 A.

Selenka, E. 1869 A.

Zittel, K. A. 1890 A, p. 841.

ARDEA Linn. Type *A. cinerea* Linn.

Coues, E. 1884 A, p. 657.

Edwards, A. M. 1871 A, p. 91.

Gadow, H. 1891 A.

Huxley, T. H. 1867 A, p. 437, fig. 19.

Magnus, H. 1869 A.

Owen, R. 1856 F, p. 209.

Selenka, E. 1869 A, pl. xi, fig. 11; pl. xvii, figs. 8, 9.

Zittel, K. A. 1890 A, p. 841.

Ardea paloccidentalis Shufeldt.

Shufeldt, R. W. 1892 D, p. 411, pl. xvii, fig. 3

1891 B, p. 819. (No description.)

Pleistocene; Oregon.

Order STEGANOPODES.

- Beddard, F. E. 1897 A, p. 468.
 Brandt, J. F. 1840 A, p. 91. (Steganopoda.)
 Cope, E. D. 1898 B, p. 88.
 Coues, E. 1884 A, p. 718.
 Fürbringer, M. 1888 A, p. 1168.
 Gadow, H. 1891 A.
 1898 A, p. 32.
 Giebel, C. G. 1866 A, p. 29. (Steganopoda.)
 Huxley, T. H. 1867 A, p. 461. (Dysporomorphæ.)
- Mivart, St. G. 1892 A, p. 272.
 Pycraft, W. P. 1898 A, p. 82.
 Seebohm, H. 1889 A.
 Selenka, E. 1869 A.
 Shufeldt, R. W. 1888 E.
 1894 C.
 1894 D.
 Stejneger, L. 1885 A, p. 179.
 Zittel, K. A. 1890 A, p. 841.

Superfamily PELECANOIDEA Stejneger.

- Stejneger, L. 1885 A, p. 185. (Pelecanoidæ.)
- Shufeldt, R. W. 1899 C. (Pelecanoidæ.)
 1894 D. (Pelecanoidæ.)

PELECANIDÆ.

- Coues, E. 1884 A, p. 721.
 Edwards, A. M. 1868 A, i, p. 180.
 Fürbringer, A. 1891 A.
 Gadow, H. 1891 A.
 Huxley, T. H. 1867 A, p. 440.
 Mivart, St. G. 1878 A.
 Parker, W. K. 1868 A, p. 149. (Pelecaninæ.)
- Reichenow, A. 1871 A.
 Selenka, E. 1869 A.
 Shufeldt, R. W. 1888 E.
 1894 C.
 1894 D.
 Zittel, K. A. 1890 A, p. 841.

PELECANUS Linn. Type *P. onocrotalus* Linn.

- Brandt, J. F. 1840 A, p. 141.
 Coues, E. 1884 A, p. 722.
 Edwards, A. M. 1868 A, i, p. 183.
 Gadow, H. 1891 A, pl. lvii, fig. 17.
 Huxley, T. H. 1867 A, p. 438, fig. 20.
 Magnus, H. 1869 A.
 Mivart, St. G. 1878 A.
 Owen, R. 1856 F, p. 212.
 Pycraft, W. P. 1898 A, pp. 84, 96.
 Seebohm, H. 1889 A.
 Selenka, E. 1869 A, pl. viii, fig. 7.
- Shufeldt, R. W. 1888 E, p. 310, figs. 40-43.
 1894 B.
 1894 C, p. 337.
 1894 D, p. 161.
 Zittel, K. A. 1890 A, p. 842.
- Pelecanus erythrorhynchus ? Gmel.**
 Coues, F. 1884 A, p. 722. (*P. trachyrhynchus*.)
 Shufeldt, R. W. 1891 B, p. 818.
 1892 D, p. 401.
 Recent; North America: Pleistocene; Oregon.

CYPHORNIS Cope. Type *C. magnus* Cope.

- Cope, E. D. 1894 G.
 The position of this genus is in doubt
- Cyphornis magnus Cope.**
 Cope, E. D. 1894 G, p. 451, pl. xx, figs. 11-14.
 Eocene ?; Vancouver Island.

SULIDÆ.

- Coues, E. 1884 A, p. 720.
 Fürbringer, M. 1888 A, p. 1172. (Sulinae.)
 Gadow, H. 1891 A.
 Pycraft, W. P. 1898 A, p. 92.
 Reichenow, A. 1871 A.
- Seebohm, H. 1889 A.
 Selenka, E. 1869 A.
 Shufeldt, R. W. 1888 E, p. 287.
 Stejneger, L. 1885 A, p. 188.
 Zittel, K. A. 1890 A, p. 842.

SULA Brisson. Type *S. bassana* (Linn.).

- Brandt, J. F. 1840 A, p. 189.
 Coues, E. 1884 A, p. 720.
 Edwards, A. M. 1868 A.
 Gadow, H. 1891 A.
 Mivart, St. G. 1878 A.
 Parker, W. K. 1868 A, p. 150.
 Pycraft, W. P. 1898 A, p. 82.
 Seebohm, H. 1889 A.
 Selenka, E. 1869 A, pl. viii, fig. 8.
- Shufeldt, R. W. 1888 E, p. 287, figs. 24-33.
 1894 B.
- Sula loxostyla Cope.**
 Cope, E. D. 1869 M (1870), p. 236, fig. 53.
 Coues, E. 1872 B, p. 849.
 1884 A, p. 824.
 Miocene; North Carolina.

PHALACROCORACIDÆ.

- Coues, E. 1884 A, p. 723.
 Fürbringer, M. 1888 A, p. 1172. (*Phalacrocoracinae*.)
 Gadow, H. 1891 A.
 Pycraft, W. P. 1898 A, p. 92. (*Phalacrocoracinae*.)
 Reichenow, A. 1871 A.

- Seeböhm, H. 1889 A.
 Selenka, E. 1869 A.
 Shufeldt, R. W. 1888 E, p. 310.
 1894 C, p. 337.
 Stejneger, L. 1885 A, p. 190.
 Zittel, K. A. 1890 A, p. 842.

PHALACROCORAX Brisson. Type *Pelecanus carbo* Linn.

- Coues, E. 1884 A, p. 726.
 Edwards, A. M. 1868 A, p. 186.
 Gadow, H. 1891 A.
 Huxley, T. H. 1867 A, p. 439, fig. 21.
 Jeffries, J. A. 1883 A.
 1884 A.
 Parker, W. K. 1868 A, p. 149.
 Pycraft, W. P. 1898 A, p. 88.
 Seeböhm, H. 1889 A.
 Selenka, E. 1869 A, pl. viii, fig. 5.
 Shufeldt, R. W. 1883 B.
 1888 E, p. 309, fig. 39.
 1894 D, p. 161.
 Zittel, K. A. 1890 A, p. 842.

Phalacrocorax idahensis Marsh.

- Marsh, O. C. 1870 A, p. 216. (*Graculus*.)
 Cope, E. D. 1869 M (1870), p. 237. (*Graculus*.)
 Coues, E. 1872 B, p. 349. (*Graculus*.)
 1884 A, p. 824.

- King, C. 1878 A, p. 443. (*G. idahoensis*.)
 Zittel, K. A. 1890 A, p. 842. (*P. idahoensis*.)
 Pleistocene; Idaho.

Phalacrocorax macropus Cope.

- Cope, E. D. 1878 H, p. 386. (*Graculus*.)
 1889 F. (*Graculus*.)
 1889 S, p. 960. (*Graculus*.)
 Coues, E. 1884 A, p. 824.
 Shufeldt, R. W. 1891 B, p. 818.
 1892 D, p. 399, pl. xv, figs. 6-9.
 Pleistocene; Oregon.

Phalacrocorax perspicillatus Pallas.

- Coues, E. 1884 A, p. 728.
 Lucas, F. A. 1890 B, p. 88, pls. ii-iv.
 1896 A.
 Stejneger, L. 1885 A, p. 191, fig. 92.
 Stejneger and Lucas 1890 A, pls. ii-iv.
 Recently extinct; Bering Island.

GRACULAVUS Marsh. Type *G. velox* Marsh.

- Marsh, O. C. 1872 E, p. 363.
 Fürbringer M. 1888 A, p. 1168.
 Stejneger, L. 1885 A, p. 30.
 Zittel, K. A. 1890 A, p. 840.

The systematic position of this genus is doubtful.

Graculavus pumilis Marsh.

- Marsh, O. C. 1872 E, p. 364.
 Coues, E. 1872 B, p. 350.
 1884 A, p. 826.

- Marsh, O. C. 1873 D, p. 229.
 1880 G, p. 196.
 Cretaceous; New Jersey.

Graculavus velox Marsh.

- Marsh, O. C. 1872 E, p. 363.
 Coues, E. 1872 B, p. 349.
 1884 A, p. 826.
 Marsh, O. C. 1873 D, p. 229.
 1880 G, p. 194.
 Cretaceous; New Jersey.

Order GALLINÆ.

- Blanchard, É. 1857 A. (*Gallidæ*.)
 Cope, E. D. 1898 B, p. 89.
 Coues, E. 1884 A, p. 571.
 Edwards, A. M. 1871 A, p. 161. ("*Gallinacæ*.")
 Fürbringer, M. 1888 A, p. 1256. (*Gallidæ*.)
 Gadow, H. 1891 A.
 1898 A, p. 33. (*Galliformes*.)
 Huxley, T. H. 1867 A, p. 459. (*Alectoromorphæ*.)
 1872 A, p. 234. (*Alectoromorphæ*.)

- Mivart, St. G. 1892 A, p. 274. (*Galliformes*.)
 Owen, R. 1856 F, p. 8.
 1866 B. (*Rasores*.)
 Parker, W. K. 1866 B.
 1868 A, p. 182.
 1870 A.
 Selenka, E. 1869 A. (*Rasores*.)
 Shufeldt, R. W. 1888 C. (*On Gallus*.)
 Zittel, K. A. 1890 A, p. 847. (*Galliformes*.)

Suborder ALECTOROPODES.

- Coues, E. 1884 A, p. 573.
 Gadow, H. 1898 A, p. 34. (*Galli*.)

- Haeckel, E. 1896 A, p. 415. (*Alectornithes*.)

TETRAONIDÆ.

Coues, E. 1884 A, p. 576.

Gadow, H. 1891 A.

Huxley, T. H. 1867 A, p. 432, figs. 14. (Tetrao.)

Parker, W. K. 1866 B.

Selenka, E. 1869 A.

Shufeldt, R. W. 1881 B.

TYMPANUCHUS Gloger. Type *Tetrao cupido* Linn.

Coues, E. 1884 A, p. 583. (Cupidonia.)

Shufeldt, R. W. 1881 B, pls. x-xii. (Cupidonia.)

Tympanuchus pallidicinctus Ridgw.

Coues, E. 1884 A, p. 584. (Cupidonia cupido pallidicincta.)

Shufeldt, R. W. 1891 B, p. 820.

1892 D, p. 418.

Recent; Great Plains: Pleistocene; Oregon.

PEDIOCÆTES Baird. Type *Tetrao phasianellus* Linn.

Coues, E. 1884 A, p. 581. (Pediocetes.)

Pediocætes lucasii Shufeldt.

Shufeldt, R. W. 1892 D, p. 414, pl. xvii, fig. 30.

1891 B, p. 820. (Name: no description.)

Pleistocene; Oregon.

Pediocætes nanus Shufeldt.

Shufeldt, R. W. 1892 D, p. 414, pl. xvii, fig. 37.

1891 B, p. 820. (Name: no description.)

Pleistocene; Oregon.

Pediocætes phasianellus (Linn.).

Coues E. 1884 A, p. 581.

Shufeldt, R. W. 1891 B, p. 820. (P. p. columbianus.)

1892 D, p. 414. (P. p. columbianus.)

Recent; western and northern America: Pleistocene; Oregon.

PALÆOTETRIX Shufeldt. Type *P. gillii* Shufeldt.

Shufeldt, R. W. 1892 D, p. 415.

1891 B, p. 820.

Palæotetrix gillii Shufeldt.

Shufeldt, R. W. 1892 D, p. 415, pl. xvii, fig. 34.

1891 B, p. 820.

Pleistocene; Oregon.

PHASIANIDÆ.

Coues, E. 1884 A, p. 576. (>Meleagrididæ.)

Fürbringer, M. 1888 A, p. 1256. (Meleagrindæ.)

Gadow, H. 1891 A.

Huxley, T. H. 1867 A, p. 432.

Mivart, St. G. 1892 A, p. 275.

Reichenow, A. 1871 A.

Selenka, E. 1869 A.

MELEAGRIS Linn. Type *M. gallopavo* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. x, p. 98.

Cope, E. D. 1869 M (1870), p. 238.

Coues, E. 1884 A, p. 576.

Edwards, A. M. 1871 A, p. 171.

Meleagris antiquus Marsh.

Marsh, O. C. 1871 E, p. 126.

Coues, E. 1872 B, p. 347.

1884 A, p. 823.

King, C. 1878 A, p. 412.

Marsh, O. C. 1897 C, p. 527.

Shufeldt, R. W. 1897 A, p. 648.

Oligocene (White River); Colorado.

Meleagris celer Marsh.

Marsh, O. C. 1872 J, p. 261.

Coues, E. 1872 B, p. 348.

1884 A, p. 823.

Shufeldt, R. W. 1897 A, p. 649.

Pleistocene; New Jersey.

Meleagris superbus Cope.

Cope, E. D. 1869 M (1870), p. 229 (M. superbus); p. 11 (M. altus).

Amer. Jour. Science 1871 A.

Cope, E. D. 1873 X, p. 298. (M. altus.)

Coues, E. 1872 B, p. 348. (M. altus.)

1884 A, p. 823. (M. altus.)

Marsh, O. C. 1870 H, p. 317. (M. altus; no description.)

1870 I, p. 11. (No description.)

1872 J, p. 260. (M. altus.)

1873 P, p. ix. (M. altus.)

Shufeldt, R. W. 1897 A, p. 648. (M. altus.)

Pleistocene; New Jersey.

Meleagris sp. indet.

Wheatley, C. M. 1871 A.

Meleagris gallopavo has been reported by Dr. Leidy (1889 H, p. 6) from a cave in Pennsylvania. The great majority of species accompanying it live yet in the vicinity.

GALLINULOIDIDÆ.

Lucas F. A. 1900 B, p. 84.

GALLINULOIDES. Type *G. wyomingensis* Eastman.

Eastman, C. R. 1900 E, p. 54.

Lucas, F. A., 1900 B, p. 79.

Gallinuloides wyomingensis Eastman.

Eastman, C. R. 1900 E, p. 54, pl. iv.

Lucas, F. A., 1900 B, p. 79, pl. i.

Eocene (Bridger, Green River shales); Wyoming.

Order RAPTORES.

Cope, E. D. 1896 B, p. 88. (Accipitres.)

Coues, E. 1884 A, p. 496.

Edwards, A. M. 1871 A, p. 406.

Fürbringer, M. 1888 A, p. 1294 (Accipitres); p. 1306 (Strigidae).

Gadow, H. 1891 A.

1898 A, p. 33. (Falconiformes.)

Glebel, C. G. 1866 A, p. 25. (Rapaces.)

Huxley, T. H. 1867 A, p. 462. (Aëtomorpha.)

Huxley, T. H. 1872 A, p. 234. (Aëtomorphæ.)

Magnus, H. 1869 A.

Mivart, St. G. 1892 A, p. 270.

Newton, A. 1868 A. (Aëtomorpha.)

Owen, R. 1856 F, p. 206.

1866 B.

Reichenow, A. 1871 A.

Selenka, E. 1869 A.

Suborder CATHARTIDES Coues.

Coues, E. 1884 A, p. 557.

Gadow, H. 1898 A, p. 33. (Cathartes.)

Mivart, St. G. 1892 A, p. 271. (Cathartes.)

CATHARTIDÆ.

Coues, E. 1884 A, p. 557.

Edwards, A. M. 1871 A, p. 406.

Fürbringer, M. 1888 A, p. 1294.

Huxley, T. H. 1867 A, p. 463.

Newton, A. 1868 A.

Reichenow, A. 1871 A.

Shufeldt, R. W. 1883 C.

PALÆOBORUS Coues. Type *Cathartes umbrosus* Cope.

Coues, E. 1884 A, p. 822.

Gadow, H. 1891 A, pl. xii, figs. 7, 8. (Cathartes.)

Huxley, T. H. 1867 A, p. 441, fig. 22. (Cathartes.)

Palæoborus umbrosus (Cope.)

Cope, E. D. 1874 I, p. 151. (Cathartes.)

1874 O, p. 18. (Cathartes.)

Cope, E. D. 1875 F, p. 73. (Vultur.)

1875 S. (Vultur.)

1877 K, p. 287, pls. lxvii, figs. 10-18; pl. lxviii. (Vultur.)

Coues, E. 1884 A, p. 822.

Shufeldt, R. W. 1883 C. (Cathartes.)

Pliocene; New Mexico.

Suborder ACCIPITRES.

Blanchard, É. 1859 A.

Coues, E. 1884 A, p. 517.

Edwards, A. M. 1871 A, p. 406. (A. diurni.)

Fürbringer, M. 1888 A, p. 1294.

Gadow, H. 1891 A.

1898 A, p. 33.

Huxley, T. H. 1867 A, p. 462. (Gyapœtidæ.)

Mivart, St. G. 1892 A, p. 270. (Falcones.)

Parker, W. K. 1868 A, p. 166. (Accipitrinæ.)

Selenka, E. 1869 A.

Zittel, K. A. 1890 A, p. 842.

FALCONIDÆ.

Blanchard, É. 1859 A. (Falco.)

Coues, E. 1884 A, p. 519.

Gadow, H. 1891 A.

Parker, W. K. 1873 A, p. 45.

Selenka, E. 1869 A.

Shufeldt, R. W. 1881 A.

AQUILA Brisson. Type *Fulco chrysaetos* Linn.

- Blanchard, É. 1859 A, p. 36.
 Coues, E. 1884 A, p. 553.
 Nicholson and Lydekker 1889 A, p. 1214, fig. 1106.
 Selenka, E. 1869 A, pl. xii, figs. 12-16; pl. xvi, figs. 5, 6; pl. xvii, fig. 13.

Aquila danana Marsh.

- Marsh, O. C. 1871 E, p. 125.
 Coues, E. 1872 B, p. 346.
 1884 A, p. 822.

- King, C. 1878 A, p. 430.
 Pliocene?; Nebraska.

Aquila pliogryps Shufeldt.

- Shufeldt, R. W. 1892 D, p. 416, pl. xvii, fig. 33.
 1891 B, p. 820.
 Pleistocene; Oregon.

Aquila sodalis Shufeldt.

- Shufeldt, R. W. 1892 D, p. 417, pl. xv, fig. 5.
 1891 B, p. 820.
 Pleistocene; Oregon.

Suborder STRIGES.

- Coues, E. 1884 A, p. 498.
 Edwards, A. M. 1871 A, p. 474. (Strigides.)
 Fürbringer, M. 1888 A, p. 1306. (Strigidae.)
 Gadow, H. 1898 A, p. 36.

- Mivart, St. G. 1892 A, p. 271.
 Parker, W. K. 1868 A, p. 166. (Striginae.)
 Shufeldt, R. W. 1881 D. (On Speotyto.)

STRIGIDÆ.

- Blanchard, É. 1859 A, p. 60. (Strix.)
 Coues, E. 1884 A, p. 502.
 Fürbringer, M. 1888 A, p. 1306.
 Gadow, H. 1891 A.

- Huxley, T. H. 1867 A, p. 462.
 Newton, A. 1868 A.
 Selenka, E. 1869 A.
 Shufeldt, R. W. 1881 D. (On Speotyto.)

Bubo Duméril. Type *Strix bubo* Linn.

- Blanchard, É. 1859 A, p. 63.
 Coues, E. 1884 A, p. 503.
 Fürbringer, M. 1888 A, p. 1306.

Bubo leptosteus Marsh.

- Marsh, O. C. 1871 E, p. 126.
 Coues, E. 1872 B, p. 347.
 1884 A, p. 822.
 King, C. 1878 A, p. 404.

- Ledy, J. 1872 B, p. 365.
 Nicholson and Lydekker 1889 A, p. 1241.
 Eocene (Bridger); Wyoming.

Bubo virginianus (Gmel.).

- Coues, E. 1884 A, p. 503.
 Shufeldt, R. W. 1891 B, p. 819.
 1892 D, p. 418.
 Recent; North America: Pleistocene; Oregon.

Order PICARLÆ.

- Blanchard, É. 1859 A, p. 126.
 Coues, E. 1884 A, p. 444.
 Fürbringer, M. 1888 A.
 Gadow, H. 1891 A.
 Huxley, T. H. 1867 A, p. 467. (Celeomorphæ.)
 1872 A, p. 234. (Celeomorphæ.)

- Mivart, St. G. 1892 A, p. 266. (Piciformes.)
 Owen, R. 1856 F, p. 207. (Scansores.)
 Parker, W. K. 1868 A, p. 169.
 Selenka, E. 1869 A.
 Stejneger, L. 1885 A, p. 368.

UINORNIS Marsh. Type *U. lucaris* Marsh.

- Marsh, O. C. 1872 J, p. 259.
 Zittel, K. A. 1890 A, p. 850.
 The position of this genus is in doubt.

Uinornis lucaris Marsh.

- Marsh, O. C. 1872 J, p. 259.

- Allen, J. A. 1878 A, p. 445.
 Coues, E. 1872 B, p. 347.
 1884 A, p. 822.
 King, C. 1878 A, p. 404.
 Eocene (Bridger); Wyoming.

Order PASSERES.

- Blanchard, É. 1859 A, p. 85.
 Cope, E. D. 1898 B, p. 90.
 Coues, E. 1884 A, p. 238.
 Edwards, A. M. 1871 A, p. 296.

- Fürbringer, M. 1888 A, p. 1406.
 Gadow, H. 1891 A.
 1898 A, p. 37. (Passeriformes.)
 Garrod, A. N. 1876 A.

Giebel, C. G. 1866 A, p. 24.
 Haeckel, E. 1895 A, p. 415. (Coracornithes.)
 Huxley, T. H. 1867 A, p. 469. (Coracomorphæ.)
 Lydekker, R. 1891 A, p. 2.
 Mivart, St. G. 1892 A, p. 260.
 Owen, R. 1856 F, p. 207. (Inaeosores.)
 Parker, W. K. 1868 A, p. 178. (Passerinae.)

Parker, W. K. 1875 B.
 1878 B.
 Selenka, E. 1869 A.
 Shufeldt, R. W. 1881 C. (On Lanius.)
 1881 D. (On Eremophilus.)
 Stejneger, L. 1885 A, p. 458.

CORVIDÆ.

Coues, E. 1884 A, p. 414.
 Gadow, H. 1891 A.

Parker, W. K. 1872 A.
 Shufeldt, R. W. 1888 D.

CORVUS Linn. Type *C. corax* Linn.

Coues, E. 1884 A, p. 415.
 Edwards, A. M. 1871 A, p. 302.
 Gadow, H. 1891 A, pl. lvii, figs. 9, 47.
 Huxley, T. H. 1867 A, p. 451, fig. 32.
 Parker, W. K. 1872 A.
 Shufeldt, R. W. 1888 D, pl. xv, fig. 1.

Corvus annectens Shufeldt.
Shufeldt, R. W. 1892 D, p. 419, pl. xv, figs. 14-16.
 1891 B, p. 820. (No description.)
 Pleistocene; Oregon.

ICTERIDÆ.

Coues, E. 1884 A, p. 399.
 Shufeldt, R. W. 1888 D.

Stejneger, L. 1885 A, p. 544.

SCOLECOPHAGUS Swainson. Type *Turdus carolinus* Müll.

Coues, E. 1884 A, p. 411.
 Shufeldt, R. W. 1888 D.

Scolecophagus affinis Shufeldt.
Shufeldt, R. W. 1892 D, p. 418, pl. xv, fig. 10.
 1891 B, p. 820. (No description.)
 Pleistocene; Oregon.

FRINGILLIDÆ.

Coues, E. 1884 A, p. 339.

Stejneger, L. 1885 A, p. 545.

PALÆOSPIZA Allen. Type *P. bella* Allen.

Allen, J. A. 1878 A.
 The relationships of this genus are in doubt.
Palæospiza bella Allen.
Allen, J. A. 1878 A, pl. i, figs. 1, 2.

Cope, E. D. 1881 M.
 Coues, E. 1884 A, p. 822.
 Eocene ? (Amyzon shales); Colorado.

CIMOLOPTERYX Marsh. Type *C. rarus* Marsh.

Marsh, O. C. 1892 G, p. 175.
 1889 D, p. 83. (No description.)
 A genus of unknown position among birds.

Cimolopteryx rarus Marsh.

Marsh, O. C. 1892 G, p. 175, pl. iii, fig. 2.
 1889 D, p. 83. (No description.)

Cimolopteryx retusus Marsh.

Marsh, O. C. 1892 G, p. 175.
 Cretaceous (Laramie); Wyoming.

PALÆONORNIS STRUTHIONOIDES Emmons.

Emmons, E. 1857 A, p. 148, fig. 114.
 Triassic ?; North Carolina.
 A fossil of doubtful relationships.

FOSSIL EGG.

Farrington, O. C. 1891 A, pp. 193-200, pls. xx, xxi.
 Miocene; South Dakota.

ICHNITES.

The imprints of the feet of animals on the rocks have been described under various general names, such as *Ichnites*, *Ornithites*, *Ornithichnites*, *Ornithoidichnites*, *Sauroidichnites*, *Batrachoidichnites*. The first attempt to place under generic names the various forms found in North America was made by President Edward Hitchcock in 1845 (Hitchcock, E. 1845 B). This communication the present writer has made the basis for both the generic and the specific names. Many of the names, both generic and specific, were afterwards changed; but this was done in violation of the rules of nomenclature as now recognized. On account of the impossibility of determining with certainty the systematic positions of the animals which made the tracks described, the "genera" are arranged alphabetically.

Bouvé, T. T. 1859 B.

Cope, E. D. 1867 D.

Deane, J. 1844 A.

1844 B.

1844 C.

1845 A.

1845 B.

1845 C.

1845 D.

Edwards, A. Milne 1869 A.

Feld, R. 1860 A.

1860 B.

1860 C.

Giebel, C. G. 1847 B, p. 84.

Hitchcock, C. H. 1855 A.

1869 A.

1871 A.

1889 A.

1889 B.

Hitchcock, E. 1836 A.

1837 A.

1837 B.

1841 A.

1843 A.

1844 A.

Hitchcock, E. 1844 B.

1845 A.

1845 B.

1847 A.

1848 A.

1858 A.

1861 A.

1863 A.

1865 A.

Lyell, C. 1842 A.

1843 A.

1846 B.

Marsh, D. 1848 A.

Mitchell, J. 1895 A.

Mudge, B. F. 1866 A.

1874 A.

Pictet, F. J. 1853 A, p. 406.

Quenstedt, F. A. 1852 A, p. 81.

Rogers, H. D. 1842 A.

Sickler, F. K. L. 1885 A.

Silliman, B. 1837 A.

Snow, F. H. 1887 A.

Voigt, F. S. 1835 A.

Zittel, K. A. 1890 A, p. 411.

ALLOPUS Marsh. Type *A. littoralis* Marsh.

Marsh, O. C. 1894 D, p. 83.

Allopus littoralis Marsh.

Marsh, O. C. 1894 D, p. 83.

1894 I, pl. xi, figs. 4, 4a.

Miller, S. A. 1897 A, p. 793.

Coal-measures; Kansas.

AMBLYPUS E. Hitch. Type *A. dextratus* E. Hitch.

Hitchcock, E. 1858 A, p. 143.

Amblypus dextratus E. Hitch.

Hitchcock, E. 1858 A, p. 143, pl. xxv, fig. 7; pl. xlviii, fig. 5.

Hitchcock, C. H. 1889 B, p. 119.

Triassic; Massachusetts.

ANCYROPUS E. Hitch. Type *Sauroidichnites heteroclitus* E. Hitch.

Hitchcock, E. 1845 B, p. 24.

1848 A, p. 242.

1858 A, p. 138.

Ancyropus heteroclitus E. Hitch.

Hitchcock E. 1845 B, p. 24 (*A. heteroclitus*, *A. jacksonianus*.)

Hitchcock, C. H. 1889 B, p. 119.

Hitchcock, E. 1841 A, p. 479, pl. xxx, fig. 2 (*Sauroidichnites heteroclitus*); fig. 3 (*Saur. jacksonii*).

1848 A, p. 242, pl. xv, figs. 3-5.

1858 A, p. 139, pl. xxv, figs. 3, 4; pl. lili, figs. 1, 2.

Triassic; Connecticut.

ANOMÆPUS E. Hitch. Type *A. scambus* E. Hitch.*Hitchcock, E.* 1848 A, p. 220.*Hitchcock, C. H.* 1889 A.
1889 B.*Hitchcock, E.* 1858 A, p. 56.

1861 A, p. 150.

1863 A, p. 48.

1865 A, p. 31.

Lydekker, R. 1890 A, p. 221.*Warren, J. C.* 1854 A, p. 35.**Anomæpus? culbertsonii (King.)***King, A. F.* 1844 A, p. 176, figure. (Ornithichnites.)

1845 A, fig. 2. (Ornithichnites.)

1845 C, p. 215, fig. 4. (Ornithichnites.)

Lyell, C. 1846 A, p. 25. (No name.)

Coal-measures; Pennsylvania.

Assigned to this genus provisionally.

Anomæpus cuneatus C. H. Hitch.*Hitchcock, C. H.* 1889 B, pp. 118, 125.

Triassic; Massachusetts.

Anomæpus curvatus E. Hitch.*Hitchcock, E.* 1863 A, p. 48, fig. 1.

1863 B, p. 86. (Apatichnus curvatus.)

1865 A, p. 5, pl. i, fig. 2; pl. xv, fig. 2.

1889 B, p. 118.

Lydekker, R. 1890 A, p. 221.

Triassic; Connecticut.

Anomæpus? gallinuloides (King.)*King, A. F.* 1844 A, p. 176, figure. (Ornithichnites.)

1845 A, fig. 1. (Ornithoidichnites.)

Lyell, C. 1846 A, p. 25. (No name.)

Coal-measures; Pennsylvania.

This track is assigned to *Anomæpus* only provisionally.**Anomæpus gracillimus (E. Hitch.)***Hitchcock, E.* 1845 B, p. 23. (Eubrontes.)*Deane, J.* 1861 A, p. 36, pl. iv, figs. 2, 4. (Grallator.)*Hitchcock, C. H.* 1865 A, p. 6. (Anomæpus.)

1889 B, pp. 118, 123.

Hitchcock, E. 1844 A, p. 305, pl. iii, fig. 4. (Ornithoidichnites.)

1848 A, p. 175, pl. ii, fig. 3. (Brontozoum.)

1858 A, p. 73, pl. xiii, fig. 5; pl. xxxix, fig. 2.

(Grallator.)

1865 A, p. 6. (Anomæpus.)

Lydekker, R. 1890 A, p. 221.*Mantell, G. A.* 1846 A, p. 38. (Ornithichnites.)*Warren, J. C.* 1854 A, p. 27. (Brontozoum.)

Triassic; Massachusetts, Pennsylvania.

Anomæpus intermedius E. Hitch.*Hitchcock, E.* 1865 A, pp. 2, 7, pl. i, fig. 1; pl. xv, fig. 1.*Hitchcock, C. H.* 1889 B, p. 118.*Hitchcock, E.* 1863 A, pp. 49, 53. (No description.)

1863 B, pp. 85, 86. (Name only.)

Lydekker, R. 1890 A, p. 221.

Triassic; Massachusetts, Connecticut.

This species is based on part of *Brontozoum isodactylum* Edw. *Hitchcock, 1858 A, p. 69.* See under *Plesiornis minor*.**Anomæpus isodactylus C. H. Hitch.***Hitchcock, C. H.* 1889 B, pp. 118, 124.

Triassic; Massachusetts.

Anomæpus major E. Hitch.*Hitchcock, E.* 1858 A, p. 56, pl. viii.*Deane, J.* 1861 A, p. 48, pl. xxxi.*Eyeremann, J.* 1866 A, p. 32.*Hitchcock, C. H.* 1871 A, p. xxi, fig. 2.

1873 A, p. 433, fig. 1.

1889 B, p. 118.

Woodworth, J. B. 1895 A.

Triassic; Massachusetts, New Jersey.

Anomæpus minimus E. Hitch.*Hitchcock, E.* 1865 A, p. 5, pl. ii, figs. 1, 2.*Hitchcock, C. H.* 1889 B, p. 118.*Hitchcock, E.* 1863 B, p. 85. (Name only.)

Triassic; Massachusetts.

Anomæpus scambus E. Hitch.*Hitchcock, E.* 1848 A, p. 222, pl. xiii, figs. 1-6.*Dana, J. D.* 1896 A, p. 752, fig. 1175.*Deane, J.* 1845 C, p. 80, figs. A, B. (No name.)

1847 A, p. 78, fig. 3. (No name.)

1861 A, p. 48, pl. xxxii. (A. minor.)

Eyeremann, J. 1889 A, p. 32. (A. minor.)*Hitchcock, C. H.* 1855 A, p. 394.

1889 B, p. 118. (A. minor.)

Hitchcock, E. 1858 A, p. 57, pl. ix, figs. 1, 2; pl.

xxxiv, fig. 2. (A. minor.)

Triassic; Massachusetts, New Jersey.

ANTHRACOPUS Leidy. Type *A. ellangowensis* Leidy.*Leidy, J.* 1879 B, p. 164.**Anthracopus ellangowensis Leidy.***Leidy, J.* 1879 B, p. 164.*Mason, W. D. H.* 1878 A, pp. 717, 725. (No name.)

Coal-measures; Pennsylvania.

ANTICHEIROPUS E. Hitch. Type, no species indicated.*Hitchcock, E.* 1865 A, p. 10.**Anticheiropus hamatus E. Hitch.***Hitchcock, E.* 1865 A, p. 10, pl. ix, figs. 1, 2.*Hitchcock, C. H.* 1889 B, p. 118.

Triassic; Massachusetts.

Anticheiropus pilulatus E. Hitch.*Hitchcock, E.* 1865 A, p. 10, pl. ix, fig. 3.*Hitchcock, C. H.* 1889 B, p. 118.

Triassic; Massachusetts.

ANTIPUS E. Hitch. Type *A. flexiloquus* E. Hitch.*Hitchcock, E.* 1858 A, p. 115.**Antipus bifidus** E. Hitch.*Hitchcock, E.* 1858 A, p. 116, pl. xxxvi, fig. 8; pl. xlviii, fig. 10.*Hitchcock, C. H.* 1889 B, p. 119.

Triassic; Massachusetts.

Antipus flexiloquus E. Hitch.*Hitchcock, E.* 1858 A, p. 115, pl. xx, fig. 10.*Hitchcock, C. H.* 1889 B, p. 119.

Triassic; Massachusetts.

APATICHNUS E. Hitch. Type *A. circumagens* E. Hitch.*Hitchcock, E.* 1858 A, p. 99.

1861 A, p. 150.

Apatichnus bellus E. Hitch.*Hitchcock, E.* 1858 A, p. 101, pl. xvii, fig. 6; pl. xxxv, fig. 8; pl. xlv, fig. 6.*Dana, J. D.* 1896 A, p. 752, fig. 1174.*Hitchcock, C. H.* 1889 B, p. 118.

Triassic; Massachusetts.

Apatichnus circumagens E. Hitch.*Hitchcock, E.* 1858 A, p. 100, pl. xvii, fig. 5; pl. xxxv, fig. 6.*Deane, J.* 1861 A, p. 37, pl. vi, fig. 1; pl. xix; pl. xxxiv, fig. 1, 2.*Hitchcock, C. H.* 1889 B, p. 118.

Triassic; Massachusetts.

Apatichnus crassus C. H. Hitch.*Hitchcock, C. H.* 1889 B, pp. 118, 122, 124.

Triassic; New Jersey.

Apatichnus holyokensis C. H. Hitch.*Hitchcock, C. H.* 1889 B, pp. 118, 123, 124.

Triassic; Massachusetts.

ARACHNICHNUS E. Hitch. Type *A. dehiscens* E. Hitch.*Hitchcock, E.* 1858 A, p. 117.**Arachnichnus dehiscens** E. Hitch.*Hitchcock, E.* 1858 A, p. 117, pl. xx, figs. 12, 13; pl. xxxvii, fig. 2.*Hitchcock, C. H.* 1889 B, p. 119.

Triassic; Massachusetts.

ARGOIDES E. Hitch. No type; *A. isodactylatus* may be taken.*Hitchcock, E.* 1845 B, p. 24.

1848 A, p. 184. (Argozoum.)

1858 A, p. 81. (Argozoum.)

Argoides isodactylatus E. Hitch.*Hitchcock, E.* 1845 B, p. 24.*Adams, C. B.* 1846 A, p. 215. (Argoides minimus?)*Hitchcock, C. H.* 1889 B, p. 118. (Argozoum paridigitatum.)*Hitchcock, E.* 1836 A, p. 325, fig. 9. (Ornithichnites minimus.)

1837 A, p. 175. (Ornithichnites minimus.)

1841 A, p. 496, pl. xlv, figs. 38, 39. (Ornithoidichnites isodactylus.)

1848 A, p. 187, pl. vi, figs. 4, 5. (Argozoum paridigitatum.)

1858 A, p. 82, pl. xiv, fig. 3; pl. xxxv, fig. 4; pl. xxxix, fig. 1. (Argozoum paridigitatum.)

Warren, J. C. 1854 A, p. 29. (Argozoum paridigitatum.)

Triassic; Massachusetts, Connecticut.

Argoides macrodactylatus (E. Hitch.).*Hitchcock, E.* 1845 B, p. 25. (Platypterna.)*Hitchcock, C. H.* 1889 B, p. 118. (Argozoum disparidigitatum.)*Hitchcock, E.* 1841 A, p. 494, pl. xliii, fig. 35. (Ornithoidichnites.)*Hitchcock, E.* 1848 A, p. 186, pl. vi, fig. 3. (Argozoum disparidigitatum.)

1858 A, p. 82, pl. xiv, fig. 2. (Argozoum disparidigitatum.)

arren, J. C. 1854 A, p. 29. (Argozoum disparidigitatum.)

Triassic; Massachusetts, Connecticut, New Jersey.

Argoides redfieldianus E. Hitch.*Hitchcock, E.* 1845 B, p. 24.*Hitchcock, C. H.* 1889 B, p. 118. (Argozoum.)*Hitchcock, E.* 1844 A, p. 304, pl. iii, fig. 1. (Ornithoidichnites redfieldii.)

1848 A, p. 185. (Argozoum.)

1858 A, p. 81, pl. xiv, fig. 1. (Argozoum.)

1863 B, p. 85. (Argozoum redfieldianum, doubtful species.)

1865 A, p. 2. (Argozoum.)

Triassic; Massachusetts.

Argoides robustus E. Hitch.*Hitchcock, E.* 1845 B, p. 24.*Glebel, C. G.* 1847 B, p. 36. (Ornithichnites robustus.)*Hitchcock, E.* 1836 A, p. 319, fig. 3. (Ornithichnites ingens minor.)

1837 B, p. 175. (O. robustus.)

Triassic; Massachusetts.

BAROPUS Marsh. Type *B. lentus* Marsh.

Marsh, O. C. 1894 D, p. 83.

Baropus lentus Marsh.

Marsh, O. C. 1894 D, p. 83, pl. ii, fig. 5.

Dana, J. D. 1896 A, p. 684, fig. 1116.

Marsh, O. C. 1894 I, p. 338, pl. xi, fig. 5.

1896 C, p. 492, fig. 11.

Miller, S. A. 1897 A, p. 798.

Coal-measures; Kansas.

BATRACHICHNUS Woodworth. Type *B. plainvillensis* Woodworth.

Woodworth, J. B. 1900 A, p. 453.

Batrachichnus plainvillensis Woodworth.

Woodworth, J. B. 1900 A, p. 453, pl. xi; text-fig. 1.

Carboniferous; Massachusetts.

BATRACHOIDES E. Hitch. Type *Batrachoides nidificans* E. Hitch.

Hitchcock, E. 1858 A, p. 121.

Hitchcock, C. H. 1871 A, p. xxi.

1873 A, p. 436.

Shepard, C. U. 1867 A.

The name *Batrachoides* is preoccupied by Lacépède for a genus of fishes.

Batrachoides nidificans E. Hitch.

Hitchcock, E. 1858 A, p. 122, pl. xxi, fig. 5; pl. l, figs. 1-4.

Hitchcock, C. H. 1889 B, p. 119.

Shepard, C. U. 1867 A.

Triassic; Massachusetts.

Batrachoides antilquor described in Hitchcock, E. 1858 A, p. 123, pl. xxi, fig. 6; pl. l, fig. 2, was rejected in 1865. (Hitchcock C. H. 1865 A, p. 2.) It is regarded as wholly of inorganic origin.

BATRACHOPUS E. Hitch. Type *B. deweyanus* E. Hitch.

Hitchcock, E. 1845 B, p. 25.

Hitchcock, C. H. 1871 A, p. xxi. (*Anisichnus*, to replace *Anisopus* preoccupied.)

Hitchcock, E. 1848 A, p. 226. (*Anisopus*.)

1858 A, pp. 60, 61. (*Anisopus*.)

Zittel, K. A. 1890, p. 411.

Batrachopus deweyanus E. Hitch.

Hitchcock, E. 1845 B, p. 25.

Dana, J. D. 1896 A, p. 751, fig. 1171. (*Anisopus*.)

Deane, J. 1845 A, p. 161, figure. (*Batrachoidichnites deweyi*.)

1861 A, p. 46, pl. xxv, fig. 2; pl. xxvi, fig. 2. (*Anisopus*.)

Hitchcock, C. H. 1855 A, p. 394. (*Anisopus*.) 1889 B, p. 119. (*Anisichnus*.)

Hitchcock, E. 1841 A, p. 489, pl. xxxix, fig. 26; pl. xlviii, fig. 44. (*Ornithoidichnites parvulus*.)

1843 A, p. 261, pl. xi, fig. 9. (*Sauroidichnites deweyi*.)

1844 A, p. 305. (*Batrachoidichnites parvulus*, B. deweyi.)

1848 A, p. 226, pl. xvi, figs. 5, 6. (*Anisopus*.)

Hitchcock, E. 1858 A, p. 60, pl. ix, fig. 3; pl. xli, fig. 2; pl. xlii, figs. 1, 2; pl. liii, fig. 8; pl. lviii, fig. 11. (*Anisopus*.)

Triassic; Connecticut.

Batrachopus gracilior (E. Hitch.).

Hitchcock, E. 1863 A, p. 54. (*Anisopus*.)

Hitchcock, C. H. 1889 B, p. 119. (*Anisichnus*.)

Hitchcock, E. 1865 A, p. 6, pl. i, fig. 3. (*Anisopus*.)

Triassic; Massachusetts.

Batrachopus gracilis (E. Hitch.).

Hitchcock, E. 1848 A, p. 228, pl. xvi, fig. 34. (*Anisopus*.)

Dana, J. D. 1896 A, p. 751, fig. 1172. (*Anisopus*.)

Deane, J. 1861 A, p. 46, pl. xxvi, fig. 1. (*Anisopus*.)

Hitchcock, C. H., 1889 B, pp. 119, 122, 123. (*Anisichnus*.)

Hitchcock, E. 1858 A, p. 61, pl. ix, fig. 4; pl. xxxv, fig. 5; pl. xxxvi, figs. 1-5; pl. lviii, fig. 9. (*Anisopus*.)

1861 A, p. 155, fig. 4. (*Anisopus*.)

Lydekker, R. 1890 A, p. 221. (*Anisopus*.)

Triassic; Massachusetts, New Jersey, Pennsylvania.

CHEIROTHEROIDES E. Hitch. Type *C. pilulatus* E. Hitch.

Hitchcock, E. 1858 A, p. 130.

Cheirotheroides pilulatus E. Hitch.

Hitchcock, E. 1858 A, p. 130, pl. xxiii, figs. 3, 4; pl. xxxvi, fig. 6; pl. liv, fig. 3.

Hitchcock, C. H. 1889 B, p. 119.

Triassic; Massachusetts.

CHELICHNUS Jardine. Type *Testudo duncani* Owen.

Jardine, W., 1850, Ann. Nat. Hist., vi, p. 206.

Chelichnus wymanianus Lea.

Lea, I. 1856 C, p. 78.

Cope, E. D. 1871 C, p. 242.

Lea, I. 1856 B, p. 123.

Triassic; Pennsylvania.

CHELONOIDES E. Hitch. Type *C. incedens* E. Hitch.

Hitchcock, E. 1858 A, p. 140.

Chelonoides incedens E. Hitch.

Hitchcock, E. 1858 A, p. 140, pl. xxxi, fig. 3

Hitchcock, C. H. 1889 B, p. 119.

Triassic; Massachusetts.

CHIROTHERIUM Kaup. Type *C. barthii* Kaup.

Kaup, J. J., 1835, Thierreich, i, p. 246; figure, p. 247.

The spelling Chelrotherium is usually employed for this genus. The original form is given above.

Cunningham, J. 1839 A, p. 12.

Gaudry, A. 1890 C, p. 171.

Hitchcock, C. H. 1869 A, p. 133.

1873 A, p. 436.

1889 A, p. 186.

King, A. T. 1845 A, p. 343. (Thenaropus,¹ type *T. heterodactylus*.)

Lortet, L. 1892 A, p. 125.

Lyell, C. 1846 A, p. 25.

Miller, S. A. 1889 A, p. 619.

Neues Jahrbuch Mineral., etc., 1835, pp. 110, 111, 122, 243.

Owen, R. 1860 E, p. 163.

Quenstedt, F. A. 1885 A, p. 121.

Warren, J. C. 1856 A.

Zittel, K. A. 1890 A, p. 4.

¹This name had previously been employed by King for tracks of a very different kind.**Chirotherium? heterodactylum** (King.)

King, A. T. 1845 A, pp. 343, 343, figs. 7a-7c. (Thenaropus.)

1845 C, p. 216. (Thenaropus.)

Lea, I. 1853 A, p. 187. (Thenaropus.)

Lyell, C. 1846 A, p. 25. ("Chelrotherium.")

Coal-measures; Pennsylvania.

Chirotherium? reiteri Moore.

Moore, W. D. 1873 A.

Coal-measures; Pennsylvania.

COLLETTOSAURUS Cox. Type *C. indianaensis* Cox.

Cox, E. T. 1874 A, p. 247.

Miller, S. A. 1889 A, p. 620.

Collettosaurus indianaensis Cox.

Cox, E. T. 1874 A, p. 247, plate.

Amer. Jour. Science 1876 A.

Coal-measures; Indiana.

COMPTICHNUS E. Hitch. Type *C. obesus* E. Hitch.

Hitchcock, E. 1865 A, p. 9.

Comptichnus obesus E. Hitch.

Hitchcock, E. 1865 A, p. 9, pl. v, fig. 4; pl. xviii, fig. 6.

Hitchcock, C. H. 1889 B, p. 119.

Triassic; Massachusetts.

CORVIPES E. Hitch. Type *C. lacertoideus* E. Hitch.

Hitchcock, E. 1858 A, p. 98.

Corvipes lacertoideus E. Hitch.

Hitchcock, E. 1858 A, p. 98, pl. xvii, fig. 3; pl. xlvii, fig. 1; pl. xxxv, fig. 7.

Hitchcock, C. H. 1889 B, pp. 118, 122.

Triassic; Massachusetts, Connecticut.

CRUCIPES Butts. Type *C. parvus* Butts.

Butts, E. 1891 A, p. 19.

Crucipes parvus Butts.

Butts, E. 1891 A, p. 19.

Coal-measures; Missouri.

CUNICHNOIDES E. Hitch. Type *C. marsupialoides* E. Hitch.

Hitchcock, E. 1858 A, p. 54.

Cunichnoides marsupialoides E. Hitch.

Hitchcock, E. 1858 A, p. 55, pl. ix, fig. 5; pl. ix, figs. 2, 3, 4.

Hitchcock, E. 1861 A, p. 154.
Triassic; Connecticut.

DROMOPUS Marsh. Type *D. agilis* Marsh.

Marsh, O. C. 1894 D, p. 82.

Fürbringer, M. 1900 A, pp. 627, 673.

Dromopus agilis Marsh.

Marsh, O. C. 1894 D, p. 182, pl. ii, fig. 3; pl. iii, fig. 3.

Dana, J. D. 1896 A, p. 684, fig. 1115.

Marsh, O. C. 1894 I, p. xi, fig. 8.

1896 D, p. 492, fig. 10.

Miller, S. A. 1897 A, p. 793.

Coal-measures; Kansas.

EUBRONTES E. Hitch. No type was mentioned, but *E. giganteus* may be taken.

Hitchcock, E. 1845 B, p. 23.

Hitchcock, C. H. 1873 A, p. 432 (Brontozoum).

1899 B, p. 118. (Brontozoum.)

Hitchcock, E. 1847 A, p. 50. (Brontozoum.)

1848 A, p. 169. (Brontozoum.)

1858 A, p. 63. (Brontozoum.)

Huxley, T. H. 1876 B, xiii, p. 515. (Brontozoum.)

Lydekker, R. 1890 A, p. 220. (Brontozoum.)

Owen, R. 1860 E, p. 290. (Brontozoum.)

Brontozoum is a substitute name for the earlier *Eubrontes*.

Eubrontes approximatus (E. Hitch.).

Hitchcock, E. 1865 A, p. 23, pl. x, fig. 2. (Brontozoum.)

Hitchcock, C. H. in Hitchcock, E. 1865 A, p. 24. (Brontozoum.)

1899 B, pp. 118, 121, 122, 123. (Brontozoum.)

Triassic; Massachusetts, New Jersey.

This species is based on portions of *Eubrontes giganteus*, but the writer can not determine whether or not any of the figures which have been published to illustrate *E. giganteus* belong here.

Eubrontes dananus E. Hitch.

Hitchcock, E. 1845 B, p. 23.

Cook, G. H. 1885 A, p. 96. (Brontozoum sillimanianum.)

Deane, J., 1861 A, p. 37, pls. vii, ix, x.

Hitchcock, C. H. 1889 B, pp. 118, 122, 123. (Brontozoum sillimanianum.)

Hitchcock, E. 1836 A, p. 318. (Ornithichnites tuberosus, part.)

1837 A, p. 175. (Ornithichnites tuberosus.)

1841 A, p. 486, in part, pl. xxxvii, fig. 21; pl. xxxviii, fig. 22 (Ornithoidichnites tuberosus);

p. 488 (Ornithoidichnites cuneatus, in part).

1843 A, p. 254 (Ornithoidichnites tuberosus);

p. 256, pl. xi, fig. 2 (O. sillimanii).

1844 A, p. 300. (O. tuberosus, part.)

1847 A, p. 49. (Brontozoum sillimanianum.)

1848 A, p. 171, pl. iii, fig. 2. (B. sillimanianum.)

1858 A, p. 68, pl. xii, fig. 3; pl. xxxiii, figs. 4, 5; pl. xliii, fig. 6. (B. sillimanianum.)

1865 A, p. 7, pl. v, fig. 1. (B. sillimanianum.)

Lydekker, R., 1890 A, p. 220. (B. sillimanianum.)

Redfield, W. C. 1843 A, p. 136. (Ornithoidichnites tuberosus.)

Warren, J. C. 1854 A, p. 27. (B. sillimanianum.)

Triassic; Massachusetts, Connecticut, New Jersey, Pennsylvania.

Eubrontes divaricatus (E. Hitch.).

Hitchcock, E. 1865 A, p. 7. (Brontozoum.)

Cook, G. H. 1885 A, p. 96. (Brontozoum.)

Hitchcock, C. H. 1889 B, p. 126. (Brontozoum.)

Hitchcock, E. 1865 A, p. 2. (B. isodactylum, in part.)

Triassic; Massachusetts, Connecticut.

This species is based partly on *Brontozoum isodactylum*, Edw. Hitchcock, 1858 A, p. 69. See under *Plesionites minor*.

Eubrontes oxpanus E. Hitch.

Hitchcock, E. 1845 B, p. 23.

1841 A, p. 487, pl. xxxviii, fig. 23; pl. xxxix, fig. 24. (Ornithoidichnites.)

1848 A, p. 174, pl. iii, fig. 1. (Brontozoum.)

Triassic; Massachusetts.

The materials on which this species was based have evidently been assigned to some other species; which one can not be determined.

Eubrontes exsertus (E. Hitch.).

Hitchcock, E. 1858 A, p. 67, pl. xii, fig. 1; pl. xxxvii-ii; pl. lvii, fig. 3. (Brontozoum.)

Deane, J., 1861 A, p. 39, pl. xlii. (Brontozoum.)

Hitchcock, C. H. 1889 B. (Brontozoum.)

Triassic; Massachusetts.

Eubrontes giganteus E. Hitch.

Hitchcock, E. 1845 B, p. 23.

Cook, G. H. 1885 A, p. 96. (Brontozoum.)

Dana, J. D. 1896 A, p. 752, fig. 1177. (Brontozoum.)

Deane, J. 1861 A, p. 42, pl. xv. (Brontozoum.)

Giebel, C. G. 1847 B, p. 35. (Ornithichnites.)

Hitchcock, C. H. 1889 B. (Brontozoum.)

Hitchcock, E. 1836 A, p. 317. (Ornithichnites.)

1837 A, p. 175. (Ornithichnites.)

1841 A, p. 484, pl. xxxvi, fig. 18. (Ornithoidichnites.)

1845 A, p. 63. (Ornithoidichnites.)

- Hitchcock, E. 1847 A, p. 57. (Brontozoum.)
 1848 A, p. 169, pl. I, fig. 1. (Brontozoum.)
 1858 A, p. 64, pl. xxxiii, figs. 1-3; pl. xii, fig. 1; pl. lili, fig. 7; pl. lvii, fig. 1. (Brontozoum.)
 1861 A, p. 149. (Brontozoum.)
 1865 A, p. 23, fig. 1. (Brontozoum.)
 Lydekker, R. 1890 A, p. 220.
 Owen, R. 1860 E, p. 289. (Brontozoum.)
 Pictet, F. J. 1853 A, p. 406, pl. xx, fig. 8. (Ornithichnites.)
 Quenstedt, F. A. 1852 A, p. 82. (Ornithichnites.)
 Warren, J. C. 1854 A, p. 25. (Brontozoum.)
 Triassic; Massachusetts, Connecticut, New Jersey.

Eubrontes minusculus (E. Hitch.)

- Hitchcock, E. 1858 A, p. 65, pl. xi, fig. 1; pl. xi, fig. 2; pl. xli, fig. 1; pl. xlii, fig. 3; pl. lvii, fig. 2. (Brontozoum.)
 Cook, G. H. 1885 A, p. 96. (Brontozoum.)
 Deane, J. 1861 A, p. 41, pls. xiv, xvi, xvii. (Brontozoum.)
 Hitchcock, C. H. 1889 B, pp. 118, 122. (Brontozoum.)
 Triassic; Massachusetts, New Jersey.

EUPALAMOPUS nom. nov. Type *Palamopus dananus* E. Hitch. = *P. clarki* E. Hitch.

- Hitchcock, E. 1848 A, p. 217. (Palamopus, not of 1845.)
 1858 A, p. 127. (Palamopus, not of 1845.)
 This generic name is intended as a substitute for *Palamopus* E. Hitch., 1848. The latter name had been employed in 1845 to denote a genus based on *P. anomalus* E. Hitch., later called *Macropterna recta* E. Hitch.

EXOCAMPE E. Hitch. Type *E. arcta* E. Hitch.

- Hitchcock, E. 1858 A, p. 142.
 Through error this genus is called, on pl. xxv of Hitchcock's paper of 1858, *Hedocampe*.
Exocampe arcta E. Hitch.
 Hitchcock, E. 1858 A, p. 143, pl. xxv, figs. 5, 6, 10; pl. xlix, fig. 5.
 Deane, J. 1861 A, p. 57, pl. xxxix.
 Hitchcock, C. H. 1889 B, p. 119.
 Triassic; Massachusetts.

Exocampe minima E. Hitch.

- Hitchcock, E. 1865 A, p. 11, pl. xviii, fig. 3, and Appendix.

FULICOPUS E. Hitch. Type *F. lyellianus* E. Hitch.

- Hitchcock, E. 1845 B, p. 23.
 1848 A, p. 177. (*Æthyopus*.)
 1858 A, p. 70. (Amblonyx.)
 Warren, J. C. 1854 A, p. 28. (*Æthyopus*.)
Fulicopus giganteus (E. Hitch.).
 Hitchcock, E. 1858 A, p. 71, pl. xlii, fig. 1; pl. xxxviii, figs. 1, 2; p. lvii, figs. 5. (Amblonyx.)
 Hitchcock, C. H. 1889 B, p. 118. (Amblonyx.)
 Hitchcock, E. 1865 A, p. 2. (Amblonyx.)
 Triassic; Massachusetts.

Fulicopus lyellianus (E. Hitch.).

- Hitchcock, E. 1845 B, p. 23.

Eubrontes tuberatus (E. Hitch.)

- Hitchcock, E. 1858 A, p. 66, pl. xi, fig. 2; pl. lli, fig. 7. (Brontozoum.)
 Hitchcock, C. H. 1889 B, p. 118. (Brontozoum.)
 Triassic; Massachusetts.

Eubrontes tuberosus E. Hitch.

- Hitchcock, E. 1845 B, p. 23.
 Deane, J. 1861 A, p. 39, pl. xii. (Brontozoum validum.)
 Hitchcock, C. H. 1889 B, p. 118. (B. validum.)
 Hitchcock, E. 1856 A, p. 818. (Ornithichnites tuberosus, part.)
 1841 A, p. 486, in part, pl. xxxvii, fig. 20. (Ornithoidichnites.)
 1848 A, p. 172, pl. ii, figs. 1, 2. (Brontozoum loxonyx.)
 1858 A, p. 67, pl. xii, fig. 2; pl. xxxviii-ii; pl. lvii, fig. 3. (Brontozoum validum.)
 Lydekker, R. 1890 A, p. 220. (B. validum.)
 Warren, J. C. 1854 A, p. 27. (B. loxonyx.)
 Triassic; Massachusetts.

Eupalamopus dananus (E. Hitch.).

- Hitchcock, E. 1848 A, p. 217, pl. xi, figs. 1, 2. (Palamopus.)
 Hitchcock, C. H. 1889 B, p. 119. (P. clarki.)
 Hitchcock, E. 1858 A, p. 127, pl. xliii, fig. 2; pl. xlii, fig. 2. (P. clarki.)
 Triassic; Massachusetts.

EXOCAMPE E. Hitch. Type *E. arcta* E. Hitch.

- Hitchcock, C. H. 1889 B, p. 119.
 Hitchcock, E. 1858 B, p. 86. (Insufficient description).
 Triassic; Massachusetts.
Exocampe ornata E. Hitch.
 Hitchcock, E. 1858 A, p. 143, pl. xxv, fig. 11; pl. lviii, figs. 1, 6.
 Deane, J. 1861 A, p. 57, pl. xxxviii, fig. 1.
 Hitchcock, C. H. 1889 B, p. 119.
 Triassic; Massachusetts.

- Hitchcock, C. H. 1889 B, p. 118. (Amblonyx.)
 Hitchcock, E. 1848 A, p. 257, pl. xi, fig. 1. (Ornithoidichnites lyellii.)
 1848 A, p. 178, pl. iv, fig. 1. (*Æthyopus*.)
 1858 A, p. 71, pl. xlii, fig. 2; pl. xxxviii, fig. 2. (Amblonyx.)
 1863 B, p. 85. (A. lyellianus, doubtful species.)
 1865 A, p. 2. (Amblonyx.)
 Warren, J. C. 1854 A, p. 28. (*Æthyopus*.)
 Triassic; Massachusetts.

GIGANDIPUS E. Hitch. Type *G. caudatus* E. Hitch.*Hitchcock*, E. 1856 A, p. 97.*Hitchcock*, C. H. 1873 A, p. 434, fig. 3. (*Gigantitherium*.)*Hitchcock*, E. 1855 A, p. 416. (*Gigadipus*; no definition.)1858 A, p. 93. (*Gigantitherium*.)

Warren, J. C. 1856 A.

Gigandipus caudatus* E. Hitch.Hitchcock*, E. 1856 A, p. 97, text-figures.*Hitchcock*, C. H. 1889 B, p. 118. (*Gigantitherium*.)*Hitchcock*, E. 1855 A, p. 416. (*Gigadipus*; insufficient description.)*Hitchcock*, E. 1858 A, p. 93, pl. xvi, figs. 1, 2; pl. xlv, fig. 4. (*Gigantitherium*.)

Triassic; Massachusetts.

Gigandipus minor* (E. Hitch.).Hitchcock*, E. 1858 A, p. 95, pl. xvii, fig. 1; pl. xli, fig. 2; pl. xlii, fig. 2. (*Gigantitherium*.)*Hitchcock*, C. H. 1889 B, p. 118. (*Gigantitherium*.)
Triassic; Massachusetts.

GRALLATOR E. Hitch. No type assigned.

Hitchcock, E. 1858 A, p. 72.

Lydekker R. 1890 A, p. 222.

Grallator cuneatus* E. Hitch.Hitchcock*, E. 1858 A, p. 74, pl. xiii, fig. 6; pl. xxxix, figs. 1, 3; pl. xli, figs. 1, 2.

Deane, J. 1861 A, p. 38, pl. viii.

Eyermann, J. 1889 A, p. 32.

Hitchcock, C. H. 1873 A, p. 432.

1889 B, pp. 118, 122.

Hitchcock, E. 1841 A, p. 488, text-fig. 106; pl. xxxix, fig. 25; pl. xlviii, figs. 45, 55. (*Ornithoidichnites*.)1843 A, p. 258. (*Ornithoidichnites*.)

Lydekker, R. 1890 A, p. 222.

Triassic; Connecticut, New Jersey.

Grallator cursorius* E. Hitch.Hitchcock*, E. 1858 A, p. 72, pl. xiii, fig. 3; pl. lviii, fig. 4.*Hitchcock*, C. H., 1889 B, pp. 118, 122.

Triassic; Massachusetts, New Jersey.

Grallator formosus* E. Hitch.Hitchcock*, E. 1858 A, p. 75, text-fig., p. 77.

Cook, G. H. 1885 A, p. 96.

Deane, J. 1861 A, p. 39, pl. xi.

Hitchcock, C. H. 1889 B, pp. 118, 122.

Triassic; Connecticut, Massachusetts, New Jersey.

Grallator gracilis* C. H. Hitch.Hitchcock*, C. H. 1865 A, p. 8, pl. ix, fig. 7.

1869 A.

1889 B, p. 118.

Triassic; Massachusetts, New Jersey.

Grallator parallelus* E. Hitch.Hitchcock*, E. 1847 A, p. 50, fig. 2. (*Brontozoum*.)

Cook, G. F. 1885 A, p. 96.

Hitchcock, C. H. 1889 B, pp. 118, 122.*Hitchcock*, E. 1836 A, p. 318. (*Ornithichnites tuberosus dubius*.)1837 B, p. 175. (*O. parallelus*.)1848 A, p. 175, pl. iii, figs. 3, 4. (*Brontozoum*.)

1863 B, p. 86.

1865 A, p. 7, pl. iv, fig. 1.

Warren, J. C. 1854 A, p. 27. (*Brontozoum*.)

Triassic; Massachusetts, New Jersey.

Grallator tenuis* E. Hitch.Hitchcock*, E. 1858 A, p. 73, pl. xiii, fig. 4; pl. lviii, fig. 5.

Deane, J. 1861 A, p. 36, pl. iv, fig. 3; pl. xxvii, fig. 2.

Eyermann, J. 1889 A, p. 32.

Hitchcock, C. H. 1889 B, p. 118.

Triassic; Massachusetts, New Jersey, Connecticut.

HARPEDACTYLUS E. Hitch. Type *H. tenuissimus* E. Hitch.*Hitchcock*, E. 1845 B, p. 24.

1848 A, p. 206.

1858 A, p. 112.

Harpedactylus crassus* E. Hitch.Hitchcock*, E. 1865 A, p. 12, pl. iii, fig. 1.*Hitchcock*, C. H. 1889 B, p. 119.*Hitchcock*, E. 1863 B, p. 86. (No description.)

Triassic; Massachusetts.

Harpedactylus gracilior* E. Hitch.Hitchcock*, E. 1865 A, p. 12, pl. iii, fig. 2.*Hitchcock*, C. H. 1889 B, p. 119.*Hitchcock*, E. 1863 B, p. 86. (No description.)

Triassic; Massachusetts.

Harpedactylus tenuissimus* E. Hitch.Hitchcock*, E. 1845 B, p. 24.*Hitchcock*, C. H. 1889 B, p. 119. (*H. gracilis*.)*Hitchcock*, E. 1841 A, p. 482, pl. xxxiv, fig. 13. (*Sauridichnites*.)1848 A, p. 206, pl. xiv, fig. 2. (*H. gracilis*.)1858 A, p. 112, pl. xx, fig. 4; pl. iii, fig. 5. (*H. gracilis*.)

Triassic; Massachusetts.

HELCURA E. Hitch. Type *H. littoralis* E. Hitch.

Hitchcock, E. 1848 A, p. 244.
1858 A, p. 141.

Helcura anguinea E. Hitch.

Hitchcock, E. 1858 A, p. 141, pl. xxxvi, fig. 9.
Triassic; Massachusetts.

Helcura littoralis E. Hitch.

Hitchcock, E. 1848 A, p. 244, pl. xv, fig. 1; pl. xxiii,
fig. 3.

Hitchcock, C. H. 1889 B, p. 119. (*H. caudata*.)
Hitchcock, E. 1858 A, p. 140, pl. xxxvii, fig. 3; pl.
xl, fig. 1. (*H. caudata*.)
Triassic; Massachusetts.

Helcura surgens E. Hitch.

Hitchcock, E. 1858 A, p. 141, pl. xxxvi, fig. 10.
Hitchcock, C. H. 1889 B, p. 119.
Triassic; Massachusetts.

HOPLICHNUS E. Hitch. Type *H. quadrupedans* E. Hitch.

Hitchcock, E. 1848 A, p. 230.
1858 A, p. 134.

It is doubtful whether or not this genus of
footmarks was produced by a vertebrate animal.

Hoplichnus equus E. Hitch.

Hitchcock, E. 1858 A, p. 134, pl. xxiv, figs. 3-5.
Hitchcock, C. H. 1889 B, p. 119.
Triassic; Massachusetts, Connecticut?

Hoplichnus quadrupedans E. Hitch.

Hitchcock, E. 1848 A, p. 230, pl. xvi, figs. 7, 8; pl.
xxii, fig. 3.
Hitchcock, C. H. 1889 B, p. 119. (*H. poledrus*.)
Hitchcock, E. 1858 A, p. 136, pl. xxiv, figs. 6, 7;
pl. xlviii, fig. 9. (*H. poledrus*.)
Triassic; Massachusetts.

HYLOPUS Dawson. Type *H. logani* Dawson.

Dawson, J. W. 1894 A, p. 260.
1895 A, p. 77.

Hylopus caudifer Dawson.

Dawson, J. W. 1895 A, p. 78.
Coal-measures; Nova Scotia.

Hylopus hardingi Dawson.

Dawson, J. W. 1895 A, p. 78.
Subcarboniferous; Nova Scotia.

Hylopus logani Dawson.

Dawson, J. W. 1894 A, p. 260, figure.
1895 A, p. 78.
Subcarboniferous; Nova Scotia.

Hylopus minor Dawson.

Dawson, J. W. 1895 A, p. 78.
Coal-measures; Nova Scotia.

Hylopus? trifidus Dawson.

Dawson, J. W. 1895 A, p. 78.
Coal-measures; Nova Scotia.

Hylopus sp. indet.

Dawson, J. W. 1895 A, p. 78.
Coal-measures; Nova Scotia.

HYPHEPUS E. Hitch. Type *H. fieldi* E. Hitch.

Hitchcock, E. 1858 A, pp. 97, 180.

Hyphepus fieldi E. Hitch.

Hitchcock, E. 1858 A, pp. 97, 189, pl. xvii, fig. 2;
pl. xxxv, fig. 11; pl. xli, fig. 2; pl. xlii, fig. 2.

Hitchcock, C. H. 1889 B, p. 118.
Triassic; Massachusetts.

ISOCAMPE E. Hitch. Type *I. strata* E. Hitch.

Hitchcock, E. 1858 A, p. 119.

Isocampe strata E. Hitch.

Hitchcock, E. 1858 A, p. 120, pl. xx, fig. 5; pl.
xxxvi, fig. 5.

Hitchcock, C. H. 1889 B, p. 118.
Triassic; Connecticut, Massachusetts.

LANGUNCULAPES E. Hitch. Type *L. latus* E. Hitch.

Hitchcock, E. 1858 A, p. 132.

Langunculapex latus E. Hitch.

Hitchcock, E. 1858 A, p. 132, pl. xxiv, fig. 1; pl.
xlv, fig. 4.

Hitchcock, C. H. 1889 B, p. 119.
Triassic; Massachusetts.

LEPTONYX E. Hitch. Type *L. lateralis* E. Hitch.*Hitchcock, E.* 1865 A, p. 8.**Leptonyx lateralis** E. Hitch.*Hitchcock, E.* 1865 A, p. 8, pl. v, fig. 3.*Hitchcock, C. H.* 1889 B, p. 118.
Triassic; Massachusetts.**LIMNOPUS** Marsh. Type *L. vagus* Marsh.*Marsh, O. C.* 1894 D, p. 82.**Limnopus vagus** Marsh.*Marsh, O. C.* 1894 D, p. 82, pl. II, fig. 2; pl. III, fig. 2.
Dana, J. D. 1896 A, p. 684, fig. 1114.*Marsh, O. C.* 1894 I, pl. xi, fig. 2.
1896 D, p. 492, fig. 9.
Miller, S. A. 1897 A, p. 793.
Coal-measures; Kansas.**NANOPUS** Marsh. Type *N. caudatus* Marsh.*Marsh, O. C.* 1894 D, p. 82.**Nanopus caudatus** Marsh.*Marsh, O. C.* 1894 D, p. 82, pl. II, fig. 1; pl. III, fig. 1.
Dana, J. D. 1896 A, p. 684, fig. 1113. (*Nasopus*.)*Marsh, O. C.* 1894 I, pl. xi, fig. 1.
1896 D, p. 492, fig. 8.
Miller, S. A. 1897 A, p. 793.
Coal-measures; Kansas.**NOTALACERTA** Butts. Type *N. missouriensis* Butts.*Butts, E.* 1891 A, p. 18.**Notalacerta missouriensis** Butts.*Butts, E.* 1891 A, p. 18, fig. 2.
Coal-measures; Missouri.**NOTAMPHIBIA** Butts. Type *N. magna* Butts.*Butts, E.* 1891 B, p. 44.**Notamphibia magna** Butts.*Butts, E.* 1891 B, p. 44.
Coal-measures; Missouri.**ORTHODACTYLUS** E. Hitch. Type *O. floriferus* E. Hitch.*Hitchcock, E.* 1858 A, p. 113.**Orthodactylus floriferus** E. Hitch.*Hitchcock, E.* 1858 A, p. 114, pl. xx, fig. 7.
Deane, J. 1861 A, p. 44, pl. xxiii.
Hitchcock, C. H. 1889 B, p. 119.
Triassic; Massachusetts.**Orthodactylus introvergens** E. Hitch.*Hitchcock, E.* 1858 A, p. 114, pl. xx, fig. 8; pl. II, fig. 1.*Hitchcock, C. H.* 1889 B, p. 119.
Triassic; Massachusetts.**Orthodactylus linearis** E. Hitch.*Hitchcock, E.* 1858 A, p. 115, pl. xx, fig. 9; pl. xlviii, fig. 4.
Deane, J. 1861 A, p. 57, pl. xxxviii, fig. 2.
Hitchcock, C. H. 1889 B, p. 119.
Triassic; Massachusetts.**OTOZOUM** E. Hitch. Type *O. moodii* E. Hitch.*Hitchcock, E.* 1847 A, p. 54.*Field, R.* 1860 B, p. 339.*Hitchcock, C. H.* 1873 A, p. 435.
1889 B.*Hitchcock, E.* 1848 A, p. 214.
1858 A, p. 123.*Owen, R.* 1860 E, p. 165.*Quenstedt, F. A.* 1852 A, p. 157.*Warren, J. C.* 1854 A, p. 32.**Otozoum caudatum** C. H. Hitch.*Hitchcock, C. H.* 1871 A, p. xx.
1889 B, pp. 119, 127.
Triassic; Connecticut.**Otozoum moodii** E. Hitch.*Hitchcock, E.* 1847 A, p. 55, fig. 1.*Dana, J. D.* 1896 A, p. 752, fig. 1176.*Deane, J.* 1861 A, p. 55, pl. xxxviii.*Hitchcock, C. H.* 1871 A, p. xxi.

1889 B, pp. 119, 127.

Hitchcock, E. 1848 A, p. 214, pl. xii, fig. 1.

1858 A, p. 123, pl. xxii; pl. xxiii, fig. 1; pl.

xxxiii, figs. 4, 5; pl. xlvi, fig. 5.

1861 A, p. 148, fig. 2.

Triassic; Massachusetts, Connecticut.

Otozoum parvum C. H. Hitch.*Hitchcock, C. H.* 1889 B, pp. 119, 122, 127.
Triassic; New Jersey, Pennsylvania.

PALÆOSAURUS NOMI. NOV. Type *Sauropus primævus* Lea.

Dawson, J. W. 1868 A, p. 357. (Sauropus.)
1895 A, p. 77. (Sauropus.)
Lea, I. 1849 A, p. 91. (Sauropus; preoccupied by E. Hitchcock, 1845.)

Lesley, J. P., 1890 A, p. 728, figures. (Sauropus.)
Miller, S. A. 1889 A, p. 625. (Sauropus.)
Owen, R. 1860 E, p. 167. (Sauropus.)

Palæosauropus antiquior (Dawson).

Dawson, J. W. 1882 A, p. 652. (Sauropus.)
1895 A, p. 77. (Sauropus.)
Subcarboniferous; Nova Scotia.

Palæosauropus primævus (Lea).

Lea, I. 1849 A, p. 91, figure. (Sauropus.)
Cope, E. D. 1871 C, p. 241. (Sauropus.)
Dana, J. D. 1896 A, p. 645, fig. 1023. (Sauropus.)
Lea, I. 1850 A. (Sauropus.)
1852 A, p. 307, pls. xxxi, xxxii. (Sauropus.)
1855 A. (Sauropus.)
Miller, S. A. 1889 A, p. 625, fig. 1193. (Sauropus.)
Silliman, B. 1852 B. (Sauropus.)

Zittel, K. A. 1890 A, p. 411. (Sauropus.)
Coal-measures; Pennsylvania.

Palæosauropus sydenensis (Dawson).

Dawson, J. W. 1883 E, p. 431, fig. 1. (Sauropus.)
1868 A, p. 358, fig. 140. (Sauropus.)
1876 A, p. 441. (Sauropus.)
1878 A, p. 358, fig. 140; suppl., p. 63. (Sauropus.)
1896 A, p. 77. (Sauropus.)
Lesley, J. P. 1890 A, p. 920, figure. (Sauropus.)
Coal-measures; Cape Breton Island.

Palæosauropus unguifer (Dawson).

Dawson, J. W. 1872 A, p. 251, figure. (Sauropus.)
1876 A, p. 441. (Sauropus.)
1878 A, suppl., p. 64. (Sauropus.)
1882 A, p. 652. (Sauropus.)
1894 A, p. 267. (Sauropus.)
1895 A, p. 77. (Sauropus.)
Carboniferous (Millstone Grit); Nova Scotia.

PALAMOPUS E. Hitch. Type *P. anomalus* E. Hitch.

Hitchcock, E. 1845 B, p. 24.
1845 B, p. 24. (Sillimanianus, in part.)
1848 A, p. 233. (Macropterna.)
1858 A, p. 128. (Macropterna.)

Lydekker, R. 1890 A, p. 219. (Macropterna.)

This is not the *Palamopus* E. Hitch. of 1848 and subsequently. The latter is here replaced by *Eupalamopus*. Since E. Hitchcock's *Macropterna recta* (= *P. anomalus*) belongs here, it becomes necessary to refer here also the other species of *Macropterna*.

Palamopus anomalus E. Hitch.

Hitchcock, E. 1845 B, p. 24.
Am. Jour. Science 1847 B, p. 276.
Deane, J. 1847 A, p. 79, fig. 4. (Sauroidichnites palmatus.)
1847 B. (Sauroidichnites palmatus.)
Hitchcock, E. 1836 A, p. 324, fig. 15. (Ornithichnites palmatus.)
1837 B, p. 175. (Sauroidichnites palmatus.)
1841 A, p. 483, pl. xxxiv, fig. 15. (Sauroidichnites palmatus.)
1848 A, p. 235, pl. xv, fig. 6. (Macropterna recta.)
Triassic; Massachusetts.

Palamopus divaricans (E. Hitch.).

Hitchcock, E. 1848 A, p. 237, pl. xv, fig. 7. (Macropterna.)
Dana, J. D. 1896 A, p. 752, fig. 1173. (Macropterna.)
Deane, J. 1861 A, p. 45, pl. xxiv, fig. 1. (Macropterna.)
Hitchcock, C. H. 1889 B, p. 119. (Macropterna.)

Hitchcock, E. 1841 A, p. 483 (part), pl. xxxiv, fig. 16. (Sauroidichnites palmatus.)
1858 A, p. 129, pl. xxiii, fig. 7. (Macropterna.)

Lydekker, R. 1890 A, p. 219. (Macropterna.)
Triassic; Massachusetts.

Palamopus gracilipes (E. Hitch.).

Hitchcock, E. 1858 A, p. 129, pl. xxiii, fig. 6; pl. xxxiv, fig. 1. (Macropterna.)
?Deane, J. 1861 A, p. 47, pl. xxix, fig. 1. (Macropterna.)
Hitchcock, C. H. 1889 B, p. 119. (Macropterna.)
Triassic; Massachusetts.

Palamopus rogersianus (E. Hitch.).

Hitchcock, E. 1845 B, p. 24. (Sillimanianus rogersianus; Argoides minimus.)
Deane, J. 1861 A, p. 47, pl. xxviii, fig. 2. (Macropterna vulgaris.)
Hitchcock, C. H. 1889 B, p. 119. (Macropterna vulgaris.)
Hitchcock, E. 1841 A, p. 497 (in part), pl. xlii, fig. 30. (Ornithoidichnites minimus, not of 1836, 1837.)
1843 A, p. 256, pl. xi, fig. 7. (Ornithoidichnites rogersi.)
1848 A, p. 187, pl. vi, fig. 6 (Argozoum minimus); p. 233, pl. xv, fig. 9 (Macropterna rhynchosauroidea).
1858 A, p. 128, pl. xxiii, fig. 5; pl. xxxv, fig. 9; pl. xxxvii, fig. 4; pl. xlviii, fig. 7; pl. xlix, fig. 6. (M. vulgaris.)
Triassic; Massachusetts, Connecticut.

PLATYPTERNA E. Hitch. Type, none given; *P. deaniana* may be taken.

Hitchcock, E. 1845 B, p. 25.

Edwards, A. Milne 1863 A, p. 136.

1869 A, p. 672.

Hitchcock, E. 1845 B, p. 25. (*Calopus*, type *C. delicatulus*.)

1848 A, p. 188.

1856 A, p. 83.

Warren, J. C. 1854 A, p. 29.

***Platypterna concamerata* (E. Hitch.).**

Hitchcock, E. 1848 A, p. 207, pl. xiv, fig. 3. (*Harpedactylus*.)

Hitchcock, C. H. 1889 B, p. 118. (*P. varica*.)

Hitchcock, E. 1858 A, p. 85, pl. xiv, fig. 8; pl. xlvii, fig. 4. (*P. varica*.)

Triassic; Massachusetts.

***Platypterna deaniana* E. Hitch.**

Hitchcock, E. 1845 B, p. 25.

Hitchcock, C. H. 1889 B, p. 118.

Hitchcock, E. 1841 A, p. 493, pl. xlii, figs. 31, 32. (*Ornithoidichnites deanii*.)

1848 A, p. 189, pl. vii, fig. 1.

1856 A, p. 83, pl. xiv, fig. 4.

1863 B, p. 85.

1865 A, p. 2.

Triassic; Connecticut.

***Platypterna delicatula* E. Hitch.**

Hitchcock, E. 1845 B, p. 25. (*Calopus*.)

Hitchcock, C. H. 1889 B, p. 118.

Hitchcock, E. 1841 A, p. 497, pl. xiv, fig. 40. (*Ornithoidichnites*.)

Hitchcock, E. 1848 A, p. 190, pl. vii, fig. 4.

1858 A, p. 84, pl. xiv, fig. 6; pl. lviii, fig. 8.

Triassic; Connecticut.

***Platypterna digitigrada* E. Hitch.**

Hitchcock, E. 1858 A, p. 86, pl. xiv, fig. 9; pl. li, fig. 2.

Hitchcock, C. H. 1889 B, p. 118.

Triassic; Massachusetts.

***Platypterna gracillima* E. Hitch.**

Hitchcock, E. 1858 A, p. 86, pl. xiv, fig. 12.

1865 A, p. 2.

Triassic; Massachusetts.

This species was rejected in the publication last quoted; but no statement is made as to what species the specimens are to be referred.

***Platypterna recta* E. Hitch.**

Hitchcock, E. 1848 A, p. 209, pl. v, fig. 5. (*Harpedactylus*.)

Hitchcock, C. H. 1889 B, p. 118.

Hitchcock, E. 1858 A, p. 84, pl. xiv, fig. 7; pl. xlvii, fig. 3.

Triassic; Massachusetts.

***Platypterna tenuis* E. Hitch.**

Hitchcock, E. 1845 B, p. 25.

Hitchcock, C. H. 1889 B, p. 118.

Hitchcock, E. 1841 A, p. 494, pl. xliii, figs. 33, 34. (*Ornithoidichnites*.)

1848 A, p. 189, pl. vii, figs. 2, 3.

1858 A, p. 84, pl. xiv, fig. 5; pl. lviii, fig. 10.

Triassic; Connecticut.

PLECTROPTERNA E. Hitch. Type *Plectropus minitans* E. Hitch.

Hitchcock, E. 1858 A, p. 108. (For *Plectropus*, preoccupied.)

1845 B, p. 24. (*Plectropus*.)

1848 A, p. 198. (*Plectropus*.)

***Plectropterna angusta* E. Hitch.**

Hitchcock, E. 1858 A, p. 110, pl. xviii, fig. 4; pl. xxxvi, fig. 3.

Hitchcock, C. H. 1889 B, p. 119.

Triassic; Massachusetts.

***Plectropterna elegans* E. Hitch.**

Hitchcock, C. H. 1889 B, pp. 122, 125.

Triassic; Connecticut.

***Plectropterna gracilis* E. Hitch.**

Hitchcock, E. 1858 A, p. 109, pl. xviii, fig. 3; pl. xlviii, fig. 2.

Hitchcock, C. H. 1889 B, p. 119.

Hitchcock, E. 1865 A, p. 24.

Triassic; Massachusetts, Connecticut.

***Plectropterna lineans* E. Hitch.**

Hitchcock, E. 1858 A, p. 110, pl. xviii, fig. 5; pl. xxxv, fig. 10.

Hitchcock, C. H. 1889 B, p. 119.

Triassic; Connecticut.

***Plectropterna minitans* E. Hitch.**

Hitchcock, E. 1845 B, p. 24. (*Plectropus*.)

Hitchcock, C. H. 1889 B, p. 119.

Hitchcock, E. 1841 A, p. 481, pl. xxxiii, fig. 11; pl. xlviii, fig. 47 (*Sauroidichnites minitans*); p. 482, pl. xxxiii, fig. 12; pl. xlviii, fig. 48 (*S. longipes*).

1844 A, p. 304. (*Sauroidichnites*.)

1845 B, p. 24. (*Plectropus longipes*.)

1848 A, p. 198, pl. ix, figs. 2, 3 (*Plectropus minitans*); p. 199, pl. viii, fig. 4; pl. x, figs. 1-3 (*Plectropus longipes*).

1858 A, p. 108, pl. xviii, fig. 2; pl. xix, figs. 10-12.

Triassic; Connecticut, Massachusetts.

PLESIORNIS E. Hitch. No type assigned.

Hitchcock, E. 1858 A, p. 102.
1861 A, p. 150.
1865 A, p. 35.

Plesiornis giganteus C. H. Hitch.

Hitchcock, C. H. 1889 B, pp. 118, 122, 126.
Triassic; Connecticut.

Plesiornis minimus (E. Hitch.).

Hitchcock, E. 1845 B, p. 23. (Argoides.)
Hitchcock, C. H. 1889 B, pp. 118, 122. (P. æqualipes.)
Hitchcock, E. 1841 A, p. 497 in part, pl. xlv, fig. 41. (Ornithoidichnites minimus.)
1848 A, p. 187, pl. vi, fig. 6. (Argozoum minimum.)
1858 A, p. 104, text-figure. (P. æqualipes.)
Triassic; Massachusetts, Connecticut.
Argoides minimus of 1845 was based on *Ornithoidichnites minimus* of 1841. This was a composite species, a part of which was assigned to *Palanopus rogersianus* of the present work (*Macropterna vulgaris* of E. Hitchcock.) The remaining part must bear the name given it in 1845.

Plesiornis minor (E. Hitch.).

Hitchcock, E. 1845 B, p. 23. (Fulicopus.)
Cook, G. H. 1885 A, p. 96. (Brontozoum isodactylum.)
Deane, J. 1844 A, p. 76. (Ornithichnites fulicoides.)
1861 A, p. 43, pls. xviii, xxxvii. (P. quadrupes.)

POLEMARCHUS E. Hitch. Type *Sauroidichnites polemarchius* E. Hitch. = *P. gigas* E. Hitch.

Hitchcock, E. 1845 B, p. 24.
1848 A, p. 197.
1858 A, p. 107.

Polemarchus gigas E. Hitch.

Hitchcock, E. 1845 B, p. 24.
Hitchcock, C. H. 1889 B, pp. 119, 122.
Hitchcock, E. 1841 A, p. 483, pl. xxxv, fig. 17. (Sauroidichnites polemarchius.)

SAUROPUS E. Hitch. Type *S. barrattii* E. Hitch. Not *Sauropus* Lea, 1849.

Hitchcock, E. 1845 B, p. 24.
Hitchcock, C. H. 1871 A, p. xxi. (Chimærichnus, for Chimæra E. Hitch., preoccupied.)
1885 B, p. 118. (Chimærichnus.)
Hitchcock, E. 1858 A' p. 118. (Chimæra.)

Sauropus barrattii E. Hitch.

Hitchcock, E. 1845 B, p. 24.
Hitchcock, C. H. 1889 B, p. 118. (Chimærichnus.)
Hitchcock, E. 1841 A, p. 477, pl. xxx, fig. 1. (Sauroidichnites.)

Eyermaun, J. 1889 A, p. 32. (B. isodactylum.)
Field, R. 1860 A. (Ornithichnites fulicoides.)
Hitchcock, C. H. 1889 B, p. 118. (P. quadrupes.)
Hitchcock, E. 1843 A, p. 258, pl. xi, fig. 3. (Ornithichnites fulicoides.)
1844 A, p. 297. (Ornithichnites fulicoides.)
1848 A, p. 179, pl. iv, figs. 2, 3. (Æthyopus minor.)
1858 A, p. 69, pl. xli, fig. 3; pl. xl, fig. 1; pl. xli, fig. 3; pl. lvii, fig. 4 (Brontozoum isodactylum); 1 p. 102, pl. xvii, fig. 7; pl. xxxv, figs. 1, 2; pl. xlv, fig. 5 (P. quadrupes).

Mantell, G. A. 1846 A. (Ornithichnites fulicoides.)
Quenstedt, F. A. 1852 A, p. 82. (Ornithichnites fulicoides.)
Warren, J. C. 1854 A, p. 28. (Æthyopus minor.)
Triassic; Massachusetts.

Either the whole or a part of this species was divided into the two new species *Brontozoum isodactylum* and *Anomæpus intermedius*, which see. The *B. isodactylum* of Cook and Eyermaun may not belong here.

Plesiornis mirabilis E. Hitch.

Hitchcock, E. 1865 A, p. 35, pl. xx.
Hitchcock, C. H. 1889 B, p. 118.
Triassic; Massachusetts.

Plesiornis pilulatus E. Hitch.

Hitchcock, E. 1858 A, p. 103, pl. xvii, fig. 8; pl. xxxvi, fig. 4.
Hitchcock, C. H. 1889 B, p. 118.
Triassic; Massachusetts.

Hitchcock, E. 1844 A, p. 304. (Sauroidichnites polemarchius.)
1845 A, p. 63. (Sauroidichnites polemarchius.)
1848 A, p. 197, pl. ix, fig. 1.
1858 A, p. 107, pl. xviii, fig. 1; pl. lix, fig. 3.
Lesley, J. P. 1889 A, p. 729.
Triassic; Massachusetts, New Jersey, Pennsylvania.

Hitchcock, E. 1848 A, p. 225, pl. xiv, fig. 1. (Anomæpus.)
1858 A, p. 118, pl. xxi, figs. 1-4; pl. xxxvii, fig. 1. (Chimæra.)
Triassic; Connecticut, Massachusetts.

Sauropus ingens (C. H. Hitch.).

Hitchcock, C. H. 1889 B, pp. 118, 122. (Chimærichnus.)
Triassic; New Jersey.

SELENICHNUS E. Hitch. Type *S. falcatus* E. Hitch.*Hitchcock, E.* 1858 A, p. 133.**Selenichnus brevisculus E. Hitch.***Hitchcock, E.* 1858 A, p. 134, pl. xxiii, fig. 9; pl. lx, fig. 7.

Deane, J. 1861 A, p. 48, pl. xxx, fig. 1.

Hitchcock, C. H. 1889 B, p. 119.

Triassic; Massachusetts.

Selenichnus falcatus E. Hitch.*Hitchcock, E.* 1858 A, p. 133, pl. xxiii, fig. 8; pl. lx, fig. 8.

Deane, J. 1861 A, p. 48, pl. xxx, fig. 2.

Hitchcock, C. H. 1889 B, p. 119.

Triassic; Massachusetts.

SHEPARDIA E. Hitch. Type *S. palmipes* E. Hitch.*Hitchcock, E.* 1858 A, p. 131.**Shepardia palmipes E. Hitch.***Hitchcock, E.* 1858 A, p. 131, pl. xxiv, fig. 2.*Hitchcock, C. H.* 1889 B, p. 119.

Triassic; Massachusetts.

SILLIMANIUS E. Hitch. Type, none assigned.*Hitchcock, E.* 1845 B, p. 24.

1848 A, p. 191. (Ornithopus; no type.)

1858 A, p. 87. (Ornithopus.)

Originally four species, *S. adamsianus*, *S. tetradactylus*, *S. gracilior*, and *S. rogersianus*, were assigned to this genus. The last-named belongs under *Palamopus*. Later (1848) *Hitchcock* referred the first three species to *Ornithopus*, a new genus. As *Sillimanus* was based on described and figured forms, *Ornithopus* becomes a synonym.

Sillimanus gracilior E. Hitch.*Hitchcock, E.* 1845 B, p. 24.*Hitchcock, C. H.* 1889 B, p. 118. (Ornithopus.)*Hitchcock, E.* 1841 A, p. 498, pl. xlv, fig. 43 (Ornithoidichnites).

1843 A. (Ornithoidichnites).

1848 A, p. 193, pl. viii, fig. 2. (Ornithopus.)

1858 A, p. 88, pl. xiv, fig. 11; pl. lviii, fig. 7. (Ornithopus.)

Triassic; Connecticut.

Sillimanus tetradactylus E. Hitch.*Hitchcock, E.* 1845 B, p. 24.

Glebel, C. G. 1847 B, p. 36. (Ornithichnites.)

Hitchcock, C. H. 1889 B, p. 118. (Ornithopus gallinaceus.)*Hitchcock, E.* 1836 A, p. 323. (Ornithichnites.)

1837 A, p. 175. (Ornithichnites.)

1841 A, p. 497, pl. xlv, fig. 42. (Ornithoidichnites.)

1848 A, p. 192, pl. viii, fig. 1. (Ornithopus gallinaceus.)

1858 A, p. 87, pl. xiv, fig. 10; pl. lviii, fig. 1. (Ornithopus gallinaceus.)

Pictet, F. J. 1853 A, p. 407. (Ornithichnites.)

Quenstedt, F. A. 1852 A, p. 82. (Ornithichnites.)

Warren, J. C. 1854 A, p. 29. (Ornithopus gallinaceus.)

Triassic; Massachusetts, Connecticut.

STENODACTYLUS E. Hitch. Type *S. curvatus* E. Hitch.*Hitchcock, E.* 1858 A, p. 116.**Stenodactylus curvatus E. Hitch.***Hitchcock, E.* 1858 A, p. 116, pl. xx, fig. 11; pl. xxiv, fig. 3.*Hitchcock, C. H.* 1889 B, p. 119.

Triassic; Massachusetts.

STEROPOIDES E. Hitch. Type not indicated.*Hitchcock, E.* 1845 B, p. 24.

Edwards, A. Milne 1863 A, p. 136. (Tridentipes.)

1869 A, p. 672. (Tridentipes.)

Hitchcock, E. 1848 A, p. 182. (Steropezoum.)

1858 A, p. 88. (Tridentipes, to replace Steropezoum.)

Lydekker, R. 1890 A, p. 222. (Tridentipes.)

Steropoides elegans E. Hitch.*Hitchcock, E.* 1845 B, p. 24. (S. elegans, S. elegantior.)

Glebel, C. G. 1847 B, p. 36. (Ornithichnites.)

Hitchcock, C. H. 1889 B, p. 118. (Tridentipes.)*Hitchcock, E.* 1836 A, p. 320. (Ornithichnites diversus); p. 321 (O. diversus platydactylus).

1841 A, p. 491, pl. xli, fig. 28, 29; pl. xlviii, figs. 57-62 (Ornithoidichnites elegans); pl.

493, pl. xlii, fig. 30; pl. xlviii, fig. 58 (O. elegantior).

1848 A, p. 183, pl. v, fig. 2 (Steropezoum elegans); p. 184, pl. v, fig. 3 (S. elegantius).

1858 A, p. 90, pl. xv, fig. 2; pl. xiv, fig. 6; pl. lii, figs. 8, 11. (Tridentipes.)

Pictet, F. J. 1853 A, p. 406. (Ornithichnites diversus.)

Triassic; Massachusetts.

Steropoides infelix nom. nov.

Hitchcock, C. H. 1889 B, p. 118. (*Tridentipes elegantior*.)

Hitchcock, E. 1853 A, p. 90, pl. xv, fig. 8; pl. xlv, fig. 1. (*Tridentipes elegantior*, not *Steropezoum elegantius*, 1848.)

Triassic; Massachusetts.

Steropoides ingens F. Hitch.

Hitchcock, E. 1845 B, p. 24. (*S. ingens*, *Sillimanus adamsanus*.)

Cook, G. H. 1885 A, p. 96. (*Tridentipes*.)

Giebel, C. G. 1847 B, p. 35 (*Ornithichnites ingens*); p. 36 (*O. danæ*.)

Hitchcock, C. H. 1889 B, pp. 118, 122. (*Tridentipes*.)

Hitchcock, E. 1836 A, p. 319. (*Ornithichnites*.)
1841 A, p. 490, pl. xl, fig. 37. (*Ornithoidichnites*.)

1844 A, p. 306, pl. iii, fig. 5. (*O. danæ*.)

1848 A, p. 182, pl. v, fig. 1 (*Steropezoum ingens*); p. 191, pl. vii, fig. 5 (*Ornithopus adamsanus*).

1858 A, p. 89, pl. xv, fig. 1. (*Tridentipes*.)

Lesley, J. P. 1890 A, p. 1211, figure. (*Tridentipes*.)

TARSODACTYLUS E. Hitch.

Hitchcock, E. 1858 A, p. 98.

Tarsodactylus caudatus E. Hitch.

Hitchcock E. 1858 A, p. 99.

Deane, J. 1861 A, p. 54, pl. xxxv.

Hitchcock, C. H. 1889 B, p. 118.

Triassic; Massachusetts.

THENAROPUS King. Type not named; *T. leptodactylus* may be assumed.

King, A. T. 1844 A, p. 177.

Amer. Jour. Science 1845 C. (*Spheropezium*.)

Hitchcock, E. 1848 A, p. 218.

King, A. T. 1845 A, p. 343. (*Spheropezopus*.)

1845 C. (*Spheropezium*.)

Lyell, C. 1846 A, p. 25. (No name.)

Miller, S. A. 1839 A, p. 626. (*Sphæropezium*, *Thenaropus*.)

Zittel, K. A. 1890 B, p. 411.

The tracks assigned to this genus are regarded by Lyell as being artifacts.

Thenaropus leptodactylus King.

King, A. T. 1844 A, p. 177, fig. 3.

Amer. Jour. Science 1845 C, p. 345. (*Spheropezium*.)

King, A. T. 1845 A, p. 345, fig. 3. (*Spheropezopus*.)
1845 C, p. 216, fig. 2. (*Spheropezium*.)

Coal-measures; Pennsylvania.

Thenaropus ovoidactylus King.

King, A. T. 1844 A, p. 178, fig. 7.

Pictet, F. J. 1853 A, p. 406. (*Ornithichnites*.)

Quenstedt, F. A. 1852 A, p. 82. (*Ornithichnites*.)
Triassic; Massachusetts, New Jersey.

Steropoides loripes (E. Hitch.).

Hitchcock, E. 1848 A, p. 193, pl. vii, fig. 3. (*Ornithopus*.)

Hitchcock, C. H. 1889 B, p. 118. (*Tridentipes insignis*.)

Hitchcock, E. 1841 A, p. 495, pl. xlv, figs. 36, 37; pl. xlviii, fig. 63. (*Ornithoidichnites divaricatus*.)

1858 A, p. 91, pl. xv, fig. 4; pl. xlv, fig. 3; pl. xlvii, fig. 2. (*Tridentipes insignis*.)

Lesley, J. P. 1890 A, p. 1211, figure. (*Tridentipes*.)
Triassic; Massachusetts.

Steropoides uncus (E. Hitch.).

Hitchcock, E. 1858 A, p. 91, pl. xv, fig. 5; pl. xlv, fig. 1. (*Tridentipes*.)

Hitchcock, C. H. 1889 B, p. 118. (*Tridentipes uncus*?)

1863 B, p. 85. (*T. uncus*, doubtful species.)

Hitchcock, E. 1865 A, p. 20. (*Tridentipes*.)

Triassic; Massachusetts.

Type *T. caudatus* E. Hitch.**Tarsodactylus expansus** C. H. Hitch.

Hitchcock, C. H. 1866 A, p. 301.

1889 B, p. 118.

Triassic; Massachusetts.

Amer. Jour. Science 1845 C, p. 347. (*Spheropezium*.)

King, A. T. 1845 A, p. 347, fig. 6. (*Spheropezopus*.)
Coal-measures; Pennsylvania.

Thenaropus pachydactylus King.

King, A. T. 1844 A, p. 177, fig. 4.

Amer. Jour. Science 1845 C, p. 346. (*Spheropezium*.)

King, A. T. 1845 A, p. 346, fig. 4. (*Spheropezopus*.)
1845 C, p. 216, fig. 1. (*Spheropezium*.)

Coal-measures; Pennsylvania.

Thenaropus sphærodactylus King.

King, A. T. 1844 A, p. 177, figs. 5, 6.

Amer. Jour. Science 1845 C, p. 346. (*Spheropezium tharodactylum*.)

King, A. T. 1845 A, p. 346, figs. 5a, 5b. (*Spheropezopus tharodactylum*.)

1845 C, fig. 3. (*Spheropezium tharodactylum*.)

Coal-measures; Pennsylvania.

THINOPUS Marsh. Type *T. antiquus* Marsh.

Marsh, O. C. 1896 G, p. 374.

Thinopus antiquus Marsh.

Marsh, O. C. 1896 G, p. 374, figure.
Devonian; Pennsylvania.

TOXICHNUS E. Hitch. Type *T. inæqualis* E. Hitch.

Hitchcock, E. 1865 A, p. 12.

Toxichnus inæqualis E. Hitch.

Hitchcock, E. 1865 A, p. 12, pl. v, fig. 5.

Hitchcock, E. 1889 B, p. 119.

Triassic; Massachusetts.

TRIENOPUS E. Hitch. Type *T. baileyanus* E. Hitch.

Hitchcock, E. 1845 B, p. 24.

1848 A, p. 202.

1868 A, p. 111.

Warren, J. C. 1854 A, p. 30.

Trienopus baileyanus E. Hitch.

Hitchcock, E. 1845 B, p. 24. (*T. baileyanus*, *T. emmonsianus*.)

Hitchcock, C. H. 1889 B, pp. 119, 122. (*T. leptodactylus*.)

Hitchcock, E. 1841 A, p. 479, pl. xxx, figs. 4-6. (*Sauroidichnites emmonsii*); p. 480, pl. xxxii, figs. 8, 9 (*S. baileyi*).

Hitchcock, E. 1848 A, p. 203, pl. x, fig. 4 (*T. baileyanus*); p. 204, pl. x, fig. 5 (*T. emmonsianus*).

1858 A, p. 111, pl. xix, figs. 1-9; pl. xx, figs. 1-3; pl. xiv, fig. 8; pl. lii, fig. 1. (*T. leptodactylus*.)

Warren, J. C. 1854 A, p. 31. (*T. baileyanus*, *T. emmonsianus*.)

Triassic; Connecticut.

TRIHAMUS E. Hitch. Type *T. elegans* E. Hitch.

Hitchcock, E. 1865 A, p. 9.

Triassic; Massachusetts.

Trihamus elegans E. Hitch.

Hitchcock, E. 1865 A, p. 9, pl. ii, fig. 3.

Hitchcock, C. H. 1889 B, p. 118.

Hitchcock, E. 1863 B, p. 86. (No description.)

Triassic; Connecticut.

Trihamus magnus C. H. Hitch.

Hitchcock, C. H. 1889 B, pp. 118, 126.

Triassic; Connecticut.

TYPOPUS E. Hitch. Type *T. abnormis* E. Hitch.

Hitchcock, E. 1845 B, p. 25.

1848 A, p. 212.

1868 A, p. 106.

Typopus abnormis E. Hitch.

Hitchcock, E. 1845 B, p. 25.

Hitchcock, C. H. 1889 B, p. 119, 122.

Hitchcock, E. 1844 A, pp. 294, 307, pl. lii, figs. 6-8. (*Sauroidichnites*.)

Hitchcock, E. 1848 A, p. 212, pl. x, fig. 6.

1858 A, p. 106, pl. xvii, fig. 9; pl. xiv, fig. 7.

Triassic; Massachusetts, Connecticut.

Typopus gracilis E. Hitch.

Hitchcock, E. 1858 A, p. 106, pl. xvii, fig. 10.

Hitchcock, C. H. 1889 B, p. 119.

Triassic; Connecticut.

XIPHOPSEZA E. Hitch. Type *X. triplex* E. Hitch.

Hitchcock, E. 1848 A, p. 239.

1858 A, p. 113.

Xiphopseza triplex E. Hitch.

Hitchcock, E. 1858 A, p. 113, pl. xx, fig. 6; pl. lii, figs. 3, 4, 6.

Deane, J. 1861 A, p. 45, pl. xxiv, fig. 2.

Hitchcock, C. H. 1889 B, p. 119.

Triassic; Massachusetts.

Class MAMMALIA Linn.

Linnaeus, C. 1758, Syst. Nat., ed. 10, 1, p. 14.

Albrecht, P. 1886 A.

Allen, H. 1882 A.

Ameghino, F. 1891 D, p. 282.

1896 A.

1898 B.

1899 A, p. 556.

Baird, S. F. 1857 A.

Baur, G. 1884 C.

1884 D.

1885 G.

1885 H.

Baur, G. 1886 A.

1886 B.

1889 D.

1891 C, p. 354.

1892 D, p. 210.

1894 A.

Baur and Case 1897 A.

Bemmelen, J. F. 1899 A, p. 162.

Branco, W. 1897 A.

Cope, E. D. 1871 B, p. 196.

1873 E, p. 645.

1874 M.

- Cope, E. D. 1880 B, p. 53.
 1881 J.
 1882 A.
 1883 M, p. 562.
 1884 E.
 1884 I, p. 43.
 1884 K, p. 323.
 1884 L, p. 324.
 1884 O, p. 166.
 1884 FF.
 1884 HH.
 1884 II.
 1885 A.
 1885 G.
 1887 S, pp. 241, 317, 341.
 1889 C.
 1889 R.
 1891 N, p. 64.
 1893 M.
 1898 B, p. 101.
 Dawkins, W. B. 1870 A.
 1880 A.
 Dobson, G. E. 1885 A.
 Fleischman, A. 1891 A.
 Flower, W. H. 1869 A.
 1876 B.
 1876 C.
 1883 A.
 1883 D.
 1885 A.
 Flower and Lydekker 1891 A.
 Frenkel, F. 1873 A.
 Fürbringer, M. 1885 B.
 Gadow, H. 1889 A, p. 474.
 1896 A, p. 42.
 1898 A, p. 39.
 Gaupp, E. 1894 A.
 Gegenbaur, C. 1864 A.
 1865 B.
 1898 A.
 Gill, T. 1871 A.
 1872 A.
 Goodrich, E. S. 1894 E.
 Haacke, W. 1888 A, p. 8.
 1893 A, p. 719.
 Haeckel, E. 1895 A, p. 419.
 Hallmann, E. 1837 A.
 Hoffmann, C. K. 1879 A, p. 31.
 Howes, G. B. 1887 B.
 1893 A.
 1896 A.
 Humphrey, G. M. 1866 A.
 Humphreys, J. 1889 A, p. 137.
 Huxley, T. H. 1870 A.
 1872 A, p. 273.
 1876 B, xiv, p. 33.
 1880 B.
 Kehner, F. A. 1876 A.
 Kehrner, G. 1886 A, p. 83.
 Kingsley and Ruddick 1900 A, p. 219.
 Köstlin, O. 1844 A.
 Kollmann, J. 1888 A.
 Kükenthal, W. 1890 C.
 1892 A.
 1892 B.
 1895 B.
 Landois, — 1881 A, p. 125.
 Lataste, F. 1889 A.
 Leboncq, H. 1896 A.
 Leche, W. 1898 A.
 1893 B.
 1895 A.
 1896 A.
 1896 B.
 Lemoine 1893 A.
 Lydekker, R. 1885 B.
 1885 C.
 1886 A.
 1886 B.
 1887 A.
 Maggi, L. 1898 B.
 1898 C.
 1898 D.
 Marsh, O. C. 1877 E.
 1885 C.
 1887 A.
 1891 H.
 1898 B.
 Mehnert, E. 1889 A.
 Nicholson and Lydekker 1889 A, p. 1245.
 Osborn, H. F. 1887 D.
 1888 E.
 1888 F.
 1892 E.
 1892 I.
 1893 A.
 1893 D.
 1893 G.
 1897 C.
 1898 A.
 1898 B.
 1898 L.
 1898 O, p. 175.
 1898 R, p. 309.
 1900 J, p. 943.
 Owen, R. 1843 A.
 1845 B, p. 296.
 1851 C.
 1858 A.
 1868 A.
 Parker, W. K. 1868 A, p. 192.
 1874 B.
 1879 B.
 1885 A.
 1886 A.
 Parsons, F. G. 1899 A.
 1900 A.
 Pollard, E. C. 1893 A.
 Reh, L. 1895 A.
 Römer, F. 1898 A.
 Röse, C. 1892 A.
 1892 D.
 1892 E.
 1893 C.
 1895 A.
 1896 A.
 Roger, O. 1889 A.
 1896 A.
 Rüttimeyer, L. 1877 A.
 1888 A.
 1891 A.
 1892 A.
 Schlosser, M. 1888 A.
 1889 A.

Schlosser, M. 1890 A.

1890 C.

1890 D.

1892 A.

1893 A.

Schmidt, O. 1896 A.

Schwalbe, G. 1894 A.

Scott, W. B. 1891 B, p. 378.

1891 C.

1892 A.

1892 C.

1899 B, p. 92.

Seeley, H. G. 1888 D, p. 106.

1888 E.

1888 H.

1898 A, p. 357.

Slade, D. D. 1888 A.

Smith, J. 1896 A.

Steinmann and Döderlein 1890 A, p. 678.

Thilenius, G. 1894 A.

Thomas, O. 1888 A.

Thomas, O. 1890 A.

1892 B.

Thompson, J. A. 1897 A, p. 41.

Tomes, C. S. 1896 A, p. 299.

Tornier, G. 1886 A.

1888 A.

1890 A.

Trouessart, E. L. 1899 A.

1896 A.

1899 A.

Turner, H. N. 1848 A.

Weber, Max 1887 A.

1893 A.

1893 B.

Weyhe, — 1875 A.

Woodward, A. S. 1896 B, p. 245.

Woodward, M. F. 1892 A.

1898 A.

1896 A.

Zittel, K. A. 1893 A.

1893 B.

Subclass PROTOTHERIA Gill.

Gill, T. 1872 B, p. vi (Prototheria); pp. 27, 46
(Ornithodelphia).

Cope, E. D. 1887 Q.

1899 R, pp. 873, 874.

1891 N, p. 377.

1898 B, p. 102.

Flower, W. H. 1883 A.

1883 D, p. 377.

1885 A. (Ornithodelphia.)

Flower and Lydekker 1889 A, p. 117.

Gadow, H. 1896 A, p. 39.

Gill, T. 1888 A.

Haeckel, E. 1896 A, p. 468. (Monotrema in part.)

Huxley, T. H. 1872 A, p. 274. (Ornithodelphia.)

1890 B.

Osborn, H. F. 1893 A, p. 391.

1899 B, p. 92.

Parker, W. K. 1885 A, p. 25.

Steinmann and Döderlein 1890 A, p. 696.

Tomes, C. S. 1896 A, p. 300.

Wilson and Hill 1897 A, p. 429.

Woodward, A. S. 1896 B, p. 248.

Zittel, K. A. 1893 B, p. 61. (Eplacentalia.)

Order PROTODONTA Osborn.

Osborn, H. F. 1887 E.

Cope, E. D. 1889 R, p. 874.

1891 N, pp. 64, 66.

1898 B, p. 102.

Gadow, H. 1896 A, p. 40.

Haeckel, E. 1896 A, p. 470. (Dromatheriidae.)

Hay, O. P. 1899 F, p. 682.

Osborn, H. F. 1888 G, p. 222.

Zittel, K. A. 1893 B, p. 96.

DROMATHERIIDÆ.

Gill, T. 1872 B, p. 27.

Cope, E. D. 1889 R, p. 874.

1896 B, p. 102.

Marsh, O. C. 1887 A, p. 344.

Nicholson and Lydekker 1889 A, p. 1272.

Osborn, H. F. 1887 F, p. 291.

1888 G, p. 222.

Steinmann and Döderlein 1890 A, p. 697.

DROMATHERIUM Emmons. Type *D. sylvestre* Emmons.

Emmons, E. 1857 A, p. 93.

Ameghino, F. 1896 A.

Emmons, E. 1858 A, p. 78. (No description.)

1860 A, p. 175.

Flower and Lydekker 1891 A, p. 113.

Goodrich, E. S. 1894 A, p. 426.

Leidy, J. 1857 B, p. 150.

1869 A, p. 410.

1870 F.

Lydekker, R. 1887 A, p. 269.

Marsh, O. C. 1891 I, p. 237.

Nicholson and Lydekker 1889 A, p. 1272.

Osborn H. F. 1886 B.

1887 D.

1887 E.

1887 F, p. 291.

1888 B.

1888 F, p. 1067.

1888 G, pp. 222, 239.

1891 C, p. 776.

1892 I.

1893 D.

1896 C, p. 6.

Owen, R. 1860 E, p. 302.

Schlosser, M. 1890 C, 242, fig. I, 1.

Scott, W. B. 1892 A, p. 405.

Winge, H. 1893 C, p. 75.

Woodward, A. S. 1898 B, p. 256.

Zittel, K. A. 1893 B, p. 96.

Authors previously to 1886 included *Microconodon* in this genus.

Dromatherium sylvestre Emmons.

Emmons, E. 1857 A, p. 93, fig. 66.

Cope, E. D. 1875 V, p. 51.

Edwards, A. M. 1896 A. (Identification doubtful.)

Emmons, E. 1860 A, p. 175, fig. 152.

Flower, W. H. 1883 D, p. 375.

Ledy, J. 1859 G.

1869 A, p. 410.

Ledy, J. 1870 F.

Osborn, H. F. 1886 A.

1886 B, p. 360.

1887 E.

1888 G, pl. ix, fig. 77.

1891 C, p. 777.

1896 C, p. 6, pl. AA, fig. 2. ("Dromatherium.")

Trouessart, E. L. 1898 A, p. 1252.

Roger, O. 1896 A, p. 12.

Woodward, A. S. 1890 A, p. 393.

Zittel, K. A. 1893 B, p. 96, fig. 73.

Triassic; North Carolina, New Jersey?

Authors writing before 1886 included *Microconodon tenuirostris* Osb. in this species.

MICROCONODON Osborn. Type *M. tenuirostris* Osborn.

Osborn, H. F. 1886 A.

Ameghino, F. 1896 A.

Cope, E. D. 1888 R.

Goodrich, E. S. 1894 A, p. 429.

Marsh, O. C. 1891 I, p. 612.

Nicholson and Lydekker 1889 A, p. 1273.

Osborn, H. F. 1886 B, p. 362.

1887 D.

1887 E.

1888 F, p. 1073.

1888 G, p. 223.

1891 C, p. 777.

1892 I.

1893 G, p. 496.

1896 C, p. 3.

1898 R, p. 353.

Schlosser, M. 1890 C, p. 242, fig. I, 2.

Winge, H. 1893 C, p. 76.

Woodward, A. S. 1898 B, p. 256.

Zittel, K. A. 1893 B, p. 97.

Before the year 1886 included in *Dromatherium*.

Microconodon tenuirostris Osborn.

Osborn, H. F. 1886 A.

Cope, E. D. 1888 R, pl. xiv.

Osborn, H. F. 1886 B, p. 362.

1888 G, p. 223, fig. A, 10, B.

1898 R, p. 353, fig. 14.

Roger, O. 1896 A, p. 12.

Seeley, H. G. 1895 B, p. 89.

Trouessart, E. L. 1898 A, p. 1252.

Triassic; North Carolina.

Order ALLOThERIA Marsh.

Marsh, O. C. 1880 F, p. 239.

Most of the authors below cited employ Cope's name *Multituberculata* for this group. Citations of such authors are followed by the contraction (Mult.).

Ameghino, F. 1894 A, p. 332. (Mult.)

Cope, E. D. 1884 O, p. 167. (Allotheria.)

1884 Y, p. 687. (Mult.)

1888 J. (Mult.)

1888 K. (Mult.)

1888 M. (Mult.)

1888 R. (Mult.)

1888 CC, p. 302. (Mult.)

1889 C. (Mult.)

1889 R, p. 874. (Mult.)

1891 N, p. 65. (Mult.)

1898 B, p. 102. (Mult.)

Flower and Lydekker 1891 A, p. 109. (Mult.)

Gadow, H. 1898 A, p. 39.

Goodrich, E. S. 1894 A, p. 429.

Haeckel, E. 1896 A, p. 476.

Hay, O. P. 1899 F, p. 682.

Lydekker, R. 1887 A, p. 195. (Mult.)

Major, Fors. 1893 A, p. 210.

Marsh, O. C. 1887 A, p. 345.

1889 D, p. 83.

Marsh, O. E. 1891 H.

1891 I, p. 239.

1892 B.

Matthew, W. D. 1899 A, p. 28. (Mult.)

Nicholson and Lydekker 1889 A, p. 1266. (Mult.)

Osborn, H. F. 1887 F, pp. 284, 285. (Mult.)

1888 B, p. 75. (Mult.)

1888 C, p. 232. (Mult.)

1888 E, p. 926. (Mult.)

1888 F, p. 1068. (Mult.)

1888 G. (Mult.)

1891 A. (Mult.)

1891 C, p. 778. (Mult.)

1891 E, p. 599. (Mult.)

1893 B, p. 313. (Mult.)

1893 D. (Mult.)

1897 C. (Mult.)

1898 O. (Mult.)

Owen, R. 1884 A. (Mult.)

Roger, O. 1896 A, p. 3. (Allotheria.)

Schlosser, M. 1890 C, p. 276. (Mult.)

Steinmann and Döderlein 1890 A, p. 698. (Mult.)

Trouessart, E. L. 1898 A, p. 1258.

Woodward, A. S. 1898 B, p. 248. (Mult.)

Zittel, K. A. 1893 B, p. 72.

BOLODONTIDÆ.

- Osborn, H. F.* 1887 F, p. 285.
Cope, E. D. 1887 H, p. 567. (Chirogidae.)
 1888 J. (Chirogidae.)
 1888 CC, p. 307. (Chirogidae.)
 1898 B, p. 102. (Chirogidae.)
Haeckel, E. 1896 A, p. 470. (Bolidontida.)
Lydekker, R. 1887 A, p. 202.
Marsh, O. C. 1887 A, p. 329. (Bolodon.)
Nicholson and Lydekker 1889 A, p. 1269
Osborn, H. F. 1887 A. (Bolodon.)

- Osborn, H. F.* 1888 C, p. 233.
 1888 G, pp. 213, 251.
 1891 B, p. 44. (Allodontidae.)
Owen, R. 1871 A, p. 54. (Bolodon.)
Roger, O. 1896 A, p. 4.
Steinmann and Döderlein 1890 A, p. 699.
Trouessart, E. L. 1898 A, p. 1258.
Woodward, A. S. 1898 B, p. 251. (Bolodon.)
Zittel, K. A. 1893 B, p. 77.

ALLACODON Marsh. Type *A. lentus* Marsh.

- Marsh, O. C.* 1889 F, p. 178.
Osborn, H. F. 1891 B.
 1898 B, pp. 314, 315, 317.
Trouessart, E. L. 1898 A, p. 1258.
Zittel, K. A. 1893 B, p. 79.

Allacodon fortis Marsh.

- Marsh, O. C.* 1892 B, p. 255, pl. vii, fig. 4.
Roger, O. 1896 A, p. 4.
Trouessart, E. L. 1898 A, p. 1258.
Walcott, C. D. 1900 A, p. 23.
 Cretaceous (Laramie); Wyoming.

Allacodon lentus Marsh.

- Marsh, O. C.* 1889 F, p. 178, pl. viii, figs. 17-31.
 1897 C, p. 521, fig. 89.
Osborn, H. F. 1891 A, p. 130, fig. 7.
 1891 B, p. 45.
 1891 E, p. 604, fig. 9.

- Roger, O.* 1896 A, p. 4.
Trouessart, E. L. 1898 A, p. 1258.
 Cretaceous (Laramie); Wyoming.

Allacodon pumilis Marsh.

- Marsh, O. C.* 1889 F, p. 179.
 1892 B, p. 255, pl. vii, fig. 3.
Osborn, H. F. 1891 A, p. 131.
 1891 E, p. 604.
Roger, O. 1896 A, p. 4.
Trouessart, E. L. 1898 A, p. 1258.
Walcott, C. D. 1900 A, p. 23.
Zittel, K. A. 1893 B, p. 79, fig. 49.
 Cretaceous (Laramie); Wyoming.

Allacodon rarus Marsh.

- Marsh, O. C.* 1892 B, p. 256, pl. vii, fig. 5.
Roger, O. 1896 A, p. 4.
Trouessart, E. L. 1898 A, p. 1258.
 Cretaceous (Laramie); Wyoming.

ALLODON Marsh. Type *A. laticeps* Marsh.

- Marsh, O. C.* 1881 F, p. 511.
Lydekker, R. 1887 A, p. 203. (= ? Bolodon.)
 1893 A. (Syn. of Bolodon.)
Nicholson and Lydekker 1889 A, p. 1270.
Marsh, O. C. 1887 A, p. 329.
Osborn, H. F. 1887 A.
 1888 C, p. 233.
 1888 G, pp. 218, 251.
Osborn and Earle 1896 A, p. 5.
Schlosser, M. 1890 C, p. 275.
Steinmann and Döderlein 1890 A, p. 699.
Trouessart, E. L. 1898 A, p. 1258.
Winge, H. 1893 C, p. 77. (Alledon, Bolodon.)
Zittel, K. A. 1893 B, pp. 78, 722.

Alledon fortis Marsh.

- Marsh, O. C.* 1887 A, p. 331, pl. vii, figs. 7-10.

- Roger, O.* 1896 A, p. 4.
Trouessart, E. L. 1898 A, p. 1258.
Woodward, A. S. 1898 B, p. 250, fig. 147.
Zittel, K. A. 1893 B, p. 78, fig. 48 A, B, C.
 Jurassic; Wyoming.

Alledon laticeps Marsh.

- Marsh, O. C.* 1881 F, p. 511.
 1887 A, p. 331, pl. vii, figs. 1-6.
Osborn, H. F. 1888 G, p. 217, fig. 10.
Roger, O. 1896 A, p. 4.
Trouessart, E. L. 1898 A, p. 1258.
Zittel, K. A. 1893 B, p. 78, fig. 48 D, E, F.
 Jurassic; Wyoming.

CHIROX Cope. Type *C. plicatus* Cope.

- Cope, E. D.* 1884 K, p. 821.
 1887 H.
 1888 I, p. 10.
 1889 L.
Matthew, W. D. 1897 C, p. 265.
Nicholson and Lydekker 1889 A, p. 1269.
Osborn, H. F. 1887 F, p. 286.
 1888 G, p. 219.

- Osborn, H. E.* 1893 D.
Winge, H. 1893 C, p. 77.
Zittel, K. A. 1893 B, p. 79.

Chirox plicatus Cope.

- Cope, E. D.* 1884 K, p. 321.
 1887 H.
 1888 I, p. 10, fig. 7.

- Cope, E. D. 1888 CC, p. 302.
 1889 C, p. 269, fig. 91.
 1898 B, p. 104, fig. 42.
 Matthew, W. D. 1897 C, p. 263.
 1899 A, p. 29.

- Osborn, H. F. 1889 G, p. 219, fig. 12.
 1891 E, p. 606, fig. 11.
 Roger, O. 1896 A, p. 4.
 Trouessart, E. L. 1898 A, p. 1258.
 Eocene (Torrejon); New Mexico.

PLAGIAULACIDÆ.

- Gill, T. 1872 B, p. 27.
 Ameghino, F. 1889 A, p. 268. (Plagiaulacoides, in part; Plagiaulacidae.)
 1891 B, p. 38.
 Cope, E. D. 1882 U.
 1882 W.
 1884 O, p. 167.
 1884 Y, p. 687.
 1888 J.
 1888 CC, p. 307.
 1889 R, p. 874.
 1898 B, p. 102.
 Haeckel, E. 1895 A, p. 470. (Plagiaulacida.)
 Lydekker, R. 1887 A, p. 195.
 Marsh, O. C. 1879 G, p. 397.
 1880 F, p. 239.
 1881 F, p. 512.
 1887 A, pp. 329, 344.
 1889 D, p. 84 (Cimolodontidae); p. 85 (Dipriodontidae); p. 86 (Triplodontidae).

- Marsh, O. C. 1889 F, p. 177. (Cimolomidae.)
 1891 I, p. 239.
 Matthew, W. D. 1899 A, p. 28.
 Nicholson and Lydekker 1889 A, p. 1267.
 Osborn, H. F. 1887 F, p. 285.
 1888 G, p. 213.
 1891 B. (Plagiaulacidae, Stereognathidae.)
 1891 C, p. 781.
 1892 D.
 1893 B.
 1893 D.
 1893 G, p. 214.
 Roger, O. 1896 A, p. 4.
 Schlosser, M. 1884 B, p. 640.
 1888 A, p. 584.
 Steinmann and Döderlein 1890 A, p. 700.
 Winge, H. 1893 C, p. 77.
 Woodward, A. S. 1898 B, p. 249.
 Zittel, K. A. 1893 B, p. 79.

PLAGIAULACINÆ.

- Osborn and Earle 1895 A, p. 11.

PLAGIAULAX Falconer. Type *P. becklesii* Falconer.

- Falconer, H. 1857 A.
 This genus being the type of the family *Plagiaulacidae*, the following references to its literature are given, although no species are known from our region.
 Ameghino, F. 1891 A, p. 40.
 Cope, E. D. 1882 U, p. 416.
 1882 W, p. 520.
 1884 O, p. 168.
 1884 Y, p. 691.
 Falconer, H. 1862 A.
 1868 A, II, p. 408, pls. xxiii, xxiv.

- Lemolne, V. 1882 A.
 Lydekker, R. 1887 A, p. 196.
 1893 A.
 Nicholson and Lydekker 1889 A, p. 1267.
 Osborn, H. F. 1888 C.
 1888 G, p. 215.
 Owen, R. 1871 A, p. 75.
 Schlosser, M. 1890 C, p. 277.
 Seeley, H. 1888 H, p. 141.
 Winge, H. 1893 C, p. 78.
 Woodward, A. S. 1898 B, p. 249.
 Zittel, K. A. 1893 B, p. 80.

OTENACODON Marsh. Type *C. serratus* Marsh.

- Marsh, O. C. 1879 G, p. 396.
 Cope, E. D. 1882 U, p. 416.
 1882 W, p. 521.
 1884 O, p. 168.
 1884 Y, p. 691.
 1888 J.
 Lydekker, R. 1893 A.
 Marsh, O. C. 1885 C.
 1887 A, p. 332.
 Nicholson and Lydekker 1889 A, p. 1267.
 Osborn, H. F. 1887 F, p. 285.
 1888 G, p. 215.
 1893 A.
 1893 B, p. 314.
 Schlosser, M. 1890 C, p. 277.
 Trouessart, E. L. 1898 A, p. 1254.
 Winge, H. 1893 C, p. 77.

- Woodward, A. S. 1898 B, p. 251.
 Wortman, J. L. 1885 A, p. 299.
 Zittel, K. A. 1893 B, pp. 81, 722.

Otenacodon nanus Marsh.

- Marsh, O. C. 1881 F, p. 512.
 Roger, O. 1896 A, p. 4.
 Trouessart, E. L. 1898 A, p. 1254.
 Jurassic; Wyoming.

Otenacodon potens Marsh.

- Marsh, O. C. 1887 A, p. 338, pl. viii, figs. 2, 3, 7-9.
 Osborn, H. F. 1891 E, p. 604, fig. 8a.
 Roger, O. 1896 A, p. 4.
 Trouessart, E. L. 1898 A, p. 1254.
 Woodward, A. S. 1898 B, p. 250, fig. 147.
 Jurassic; Wyoming.

Ctenacodon serratus Marsh.*Marsh, O. C.* 1879 G, p. 396.*Cope, E. D.* 1884 Y, p. 693, fig. 7.

1888 J, fig. 9a.

1889 C, p. 270, fig. 93a.

Marsh, O. C. 1880 F, p. 238, figure.

1887 A, p. 333, pl. viii, figs. 1, 4-6.

Marsh, O. C. 1897 C, p. 508, fig. 70.*Osborn, H. F.* 1888 G, p. 216, fig. 8.*Roger, O.* 1896 A, p. 4.*Trouessart, E. L.* 1898 A, p. 1254.*Woodward, A. S.* 1898 B, p. 250, fig. 147.*Zittel, K. A.* 1893 B, p. 80, figs. 53, 54.

Jurassic; Wyoming.

NEOPLAGIAULAX Lemoine. Type *N. eocænus* Lemoine.*Lemoine, V.* 1863 A.*Cope, E. D.* 1887 H, p. 567.*Lemoine, V.* 1891 A, p. 289.*Lydekker, R.* 1887 A, p. 196.*Marsh, O. C.* 1887, A, p. 344.*Matthew, W. D.* 1897 C, p. 265.*Nicholson and Lydekker* 1889 A, p. 1267.*Osborn, H. F.* 1891 C, p. 781.

1892 I.

Roger, O. 1896 A, p. 6.*Schlösser, M.* 1890 C, p. 277.*Winge, H.* 1893 C, p. 78.*Zittel, K. A.* 1893 B, p. 84.**Neoplagiaulax americanus Cope.***Cope, E. D.* 1885 M, p. 493.

1886 I, p. 451.

Cope, E. D. 1888 CC, p. 302.*Matthew, W. D.* 1897 C, p. 263.

1899 A, p. 28.

Osborn and Earle 1896 A, p. 7.*Roger, O.* 1896 A, p. 6.*Trouessart, E. L.* 1898 A, p. 1257.

Eocene (Puerco); New Mexico.

Neoplagiaulax molestus Cope.*Cope, E. D.* 1869 I.

1888 CC, p. 307, pl. v, figs. 10, 11.

Matthew, W. D. 1897 C, p. 263.

1899 A, p. 28.

Osborn and Earle 1896 A, p. 6. (Chirox.)*Roger, O.* 1896 A, p. 6.*Trouessart, E. L.* 1898 A, p. 1257.

Eocene (Torrejon); New Mexico.

PTILODUS Cope. Type *P. mediævus* Cope.*Cope, E. D.* 1861 V.

1882 U, p. 416.

1882 W, p. 520.

1884 O, pp. 168, 172.

1884 Y, p. 691.

1888 J, p. 12.

Lydekker, R. 1887 A, p. 196.*Nicholson and Lydekker* 1889 A, p. 1267.*Osborn, H. F.* 1888 G, p. 217.

1891 A, p. 134.

1893 B, p. 314, pl. vii, figs. 1-6, text figs. 1, 2.

1893 D, p. 80.

Winge, H. 1893 C, p. 78.*Woodward, A. S.* 1898 B, p. 252.*Zittel, K. A.* 1893 B, p. 83.**Ptilodus mediævus Cope.***Cope, E. D.* 1881 V.

1882 W, p. 522.

1884 O, p. 173, pl. xxiii d, fig. 1.

1884 Y, p. 696, fig. 8.

Cope, E. D. 1888 CC, p. 302.

1898 B, p. 104, fig. 41.

Lydekker, R. 1887 A, p. 196, fig. 30.*Matthew, W. D.* 1897 C, p. 263.

1899 A, p. 28.

Osborn and Earle 1896 A, p. 7.*Roger, O.* 1896 A, p. 5.*Trouessart, E. L.* 1898 A, p. 1256.

Eocene (Torrejon); New Mexico.

Ptilodus trouessartianus Cope.*Cope, E. D.* 1882 AA, p. 686.

1884 O, p. 737, pl. xxvf, fig. 19.

1885 M, p. 493.

1888 CC, p. 302.

Matthew, W. D. 1897 C, p. 263.

1899 A, p. 28.

Osborn, H. F. 1893 B, p. 315, text fig. 1.*Roger, O.* 1896 A, p. 5.*Trouessart, E. L.* 1898 A, p. 1256.

Eocene (Torrejon); New Mexico.

CIMOLOMYS Marsh. Type *C. gracilis* Marsh.*Marsh, O. C.* 1889 D, p. 84.*Cope, E. D.* 1892 U, p. 762. (Cimolodon.)*Marsh, O. C.* 1889 D, p. 84 (Cimolodon, type *C. nitidus*); p. 85 (Nanomys, type *N. minutus*).

1892 B, p. 261. (Nanomys, to replace

Nanomys.)

Nicholson and Lydekker 1889 A, p. 1268.*Osborn, H. F.* 1891 A, p. 125.

1891 B.

1893 B, p. 314. (Ptilodus.)

Steinmann and Döderlein 1890 A, p. 700.*Trouessart, E. L.* 1898 A, p. 1256.*Zittel, K. A.* 1893 B, p. 82.**Cimolomys agilis (Marsh).***Marsh, O. C.* 1889 B, p. 255, pl. vi, fig. 8. (Cimolodon.)*Roger, O.* 1896 A, p. 6.*Trouessart, E. L.* 1898 A, p. 1257.*Walcott, C. D.* 1900 A, p. 23. (Cimolodon.)

Cretaceous (Laramie); Wyoming.

Cimolomys bellus Marsh.*Marsh, O. C.* 1889 D, p. 84.

1892 B, p. 262, pl. vii, fig. 2.

Osborn, H. F. 1891 A, p. 125. (Syn. of *C. gracilis*.)

Osborn, H. F. 1891 B, p. 44.

1891 E, p. 599.

1893 B, p. 316. (*Ptilodus*.)

Roger, O. 1896 A, p. 6.

Trouessart, E. L. 1898 A, p. 1256. (Syn. of *C. gracilis*.)

Cretaceous (Laramie); Wyoming.

***Cimolomys digona* Marsh.**

Marsh, O. C. 1889 F, p. 177, pl. vii, figs. 1-4, 13-16.

1897 C, p. 521, fig. 87.

Osborn, H. F. 1891 A, p. 126.

1891 B, p. 44.

1891 E, p. 599.

1893 B, p. 317. (*Ptilodus*.)

Roger, O. 1896 A, p. 6.

Trouessart, E. L. 1898 A, p. 1256.

Cretaceous (Laramie); Wyoming.

***Cimolomys formosus* (Marsh).**

Marsh, O. C. 1889 F, p. 179, pl. viii, figs. 32-39. (Halodon.)

Osborn, H. F. 1891 A, p. 126, fig. 1.c.

1891 B, p. 44.

1893 B, p. 315. (*Ptilodus*.)

Roger, O. 1896 A, p. 6.

Trouessart, E. L. 1898 A, p. 1257.

Zittel, K. A. 1893 B, p. 84, fig. 61, C. (Halodon.)

Cretaceous (Laramie); Wyoming.

***Cimolomys gracilis* Marsh.**

Marsh, O. C. 1889 D, p. 84, pl. ii, figs. 1-4.

Osborn, H. F. 1891 A, p. 125, figs. 2, a, 3.

1891 B, p. 44.

1891 E, pp. 599, 601, figs. 3, 4.

1893 B, p. 317. (*Ptilodus*.)

Roger, O. 1896 A, p. 6.

Trouessart, E. L. 1898 A, p. 1256.

Zittel, K. A. 1893 B, p. 81, fig. 56.

Cretaceous (Laramie); Wyoming.

***Cimolomys minutus* (Marsh).**

Marsh, O. C. 1889 D, p. 85, pl. ii, figs. 9-12. (*Nanomys*.)

1892 B, p. 261, pl. vi, fig. 2. (*Nanomys*.)

Osborn, H. F. 1891 A, p. 126, figs. 2, c, 3.

1891 E, p. 600, figs. 3, 4.

1892 B, p. 44.

1893 B, p. 316.

Roger, O. 1896 A, p. 6.

Trouessart, E. L. 1898 A, p. 1256. (Syn. of *C. gracilis*.)

Cretaceous (Laramie); Wyoming.

***Cimolomys nitidus* (Marsh).**

Marsh, O. C. 1889 D, p. 84, pl. ii, figs. 5-8. (*Cimolodon*.)

Cope, E. D. 1892 U, p. 762. (*Cimolodon*.)

Marsh, O. C. 1892 B, p. 255, pl. vi, figs. 7, 9. (*Cimolodon*.)

Osborn, H. F. 1891 A, p. 126, fig. 2, b. (*Cimolodon*.)

1891 B, p. 44. (*Cimolomys*.)

1891 E, p. 600, figs. 3, 4.

1893 B, p. 316. (*Ptilodus*.)

Roger, O. 1896 A, p. 6.

Trouessart, E. L. 1898 A, p. 1257. (Syn. of *C. gracilis*.)

Zittel, K. A. 1893 B, p. 82, figs. 57, 58.

Cretaceous (Laramie); Wyoming.

***Cimolomys parvus* (Marsh).**

Marsh, O. C. 1892 B, p. 254, pl. vi, fig. 4. (*Cimolodon*.)

Roger, O. 1896 A, p. 6.

Trouessart, E. L. 1898 A, p. 1257.

Cretaceous (Laramie); Wyoming.

***Cimolomys serratus* (Marsh).**

Marsh, O. C. 1889 D, p. 87, pl. iii, figs. 4-6, 14-17. (Halodon.)

Osborn, H. F. 1891 A, p. 126, figs. 1, b, 5, c. (Halodon.)

1891 B, p. 44.

1891 E, p. 600, fig. 2, 4.

1893 B, pp. 315, 318. (In part to *Ptilodus*; in part to *Meniscoessus*.)

Roger, O. 1896 A, p. 6. (Halodon.)

Trouessart, E. L. 1898 A, p. 1257. (Syn. of *C. gracilis*.)

Cretaceous (Laramie); Wyoming.

Meniscoessus Cope. Type *M. conquistus* Cope.

Cope, E. D. 1882 BB.

1884 Y, p. 691.

1888 J.

1889 L.

1892 U, p. 762. (*Dipriodon*? =? *Ptilodus*.)

Marsh, O. C. 1889 D, p. 85 (*Dipriodon*, type *D. robustus*); p. 86 (*Selenacodon*, type *S. fragilis*; *Triprion*, type *T. caratus*); p. 87 (*Halodon* in part, type *H. sculptus*).

1891 I.

1892 D, p. 82.

1892 G, p. 174.

Nicholson and Lydekker 1889 A, p. 1263.

Osborn, H. F. 1887 F, p. 286.

1888 G, p. 217.

1891 A, p. 128.

1891 B.

1891 C, pp. 779, 782.

Osborn, H. F. 1891 E, pp. 597, 609.

1893 B, pp. 313, 317, 320. (Syn? of *Paronychodon*.)

1893 D, p. 30.

Schlosser, M. 1890 C, p. 277.

Trouessart, E. L. 1898 A, p. 1254.

Wortmann, J. L. 1888 A, p. 709.

1885 A, p. 296.

Zittel, K. A. 1893 B, p. 83.

***Meniscoessus brevis* (Marsh).**

Marsh, O. C. 1889 F, p. 177, pl. vii, figs. 9-12. (*Selenacodon*.)

Osborn, H. F. 1891 A, p. 129, fig. 5, d.

1891 B, p. 45.

1891 E, p. 602, fig. 5.

1893 B, p. 318.

Roger, O. 1896 A, p. 5. (Syn. of *M. conquistus*.)

Trouessart, E. L. 1898 A, p. 1255. (Syn. of *M. conquistus*.)

Cretaceous (Laramie); Wyoming.

***Meniscoëssus caperatus* (Marsh).**

Marsh, O. C. 1889 D, p. 86, pl. iii, figs. 18-20. (Tripriondon.)

Dana, J. D. 1896 A, p. 853, fig. 1443. (Tripriondon.)

Marsh, O. C. 1892 B, p. 261, pl. v, fig. 2. (Tripriondon.)

Osborn, H. F. 1891 A, p. 129.

1891 B, p. 45.

1891 E, p. 602, fig. 8.

1898 B, p. 318.

Trouessart, E. L. 1898 A, p. 1255. (Syn. of *M. conquistus*.)

Cretaceous (Laramie); Wyoming.

***Meniscoëssus coslatus* (Marsh).**

Marsh, O. C. 1889 D, p. 86, pl. ii, figs. 19-21. (Tripriondon.)

Dana, J. D. 1896 A, p. 853, fig. 1442. (Tripriondon.)

Major, Fors. 1893 A, p. 211. (Tripriondon.)

Osborn, H. F. 1891 A, p. 129, fig. 4,b.

1891 B, p. 45.

1891 E, p. 602, figs. 5, 8.

1898 B, p. 319.

Roger, O. 1896 A, p. 5. (Syn. of *M. conquistus*.)

Trouessart, E. L. 1898 A, p. 1255. (Syn. of *M. conquistus*.)

Zittel, K. A. 1893 B, p. 82, fig. 59B. (Tripriondon.)

Cretaceous (Laramie); Wyoming.

***Meniscoëssus conquistus* Cope.**

Cope, E. D. 1882 BB.

1884 Y, p. 691, fig. 7.

1888 J.

1890 C, p. 270, fig. 93 d,f.

1899 L, p. 490.

Marsh, O. C. 1889 D, p. 82.

Osborn, H. F. 1891 B p. 45.

1891 E, p. 597 E, fig. 1.

1891 I.

1898 B, p. 319.

Osborn and Earle, 1896 A, p. 14.

Roger, O. 1896 A, p. 5.

Trouessart, E. L. 1898 A, p. 1255.

Zittel, K. A. 1893 B, p. 82, fig. 59 A.

Cretaceous (Laramie); Wyoming.

***Meniscoëssus fragilis* (Marsh).**

Marsh, O. C. 1889 D, p. 86, pl. ii, figs. 22-24. (Selenacodon.)

Major, Fors. 1893 A, p. 211. (Selenacodon.)

Osborn, H. F. 1891 A, p. 128, figs. 4,c, 5,d, 6.

1891 B, p. 45.

1891 E, p. 602, figs. 5, 8.

1898 B, p. 318.

Roger, O. 1896 A, p. 5. (Syn. of *M. conquistus*.)

Trouessart, E. L. 1898 A, p. 1255. (Syn. of *M. conquistus*.)

Cretaceous (Laramie); Wyoming.

***Meniscoëssus lunatus* (Marsh).**

Marsh, O. C. 1889 D, p. 85, pl. ii, figs. 16-18. (Dipriondon.)

Cope, E. D. 1892 U, p. 762. (?Ptilodus.)

Dana, J. D. 1896 A, p. 853, fig. 1440. (Dipriondon.)

Marsh, O. C. 1892 B, p. 261, pl. v, figs. 6, 7. (Dipriondon.)

Osborn, H. F. 1891 A, pp. 128, 130, figs. 4,d, 6. (Dipriondon.)

1891 E, p. 602, figs. 5, 8.

1898 B, p. 318.

Roger, O. 1896 A, p. 5. (Syn. of *M. conquistus*.)

Trouessart, E. L. 1898 A, p. 1255.

Zittel, K. A. 1893 B, p. 83, fig. 60A. (Dipriondon.)

Cretaceous (Laramie); Wyoming.

***Meniscoëssus robustus* (Marsh).**

Marsh, O. C. 1889 D, p. 85, pl. ii, figs. 13-15. (Dipriondon.)

Major, Fors. 1893 A, p. 211. (Dipriondon.)

Osborn, H. F. 1891 A, pp. 128, 130, figs. 4,a. (Dipriondon.)

1891 B, p. 45.

1891 C, p. 782.

1891 E, p. 601, figs. 5, 7, 8.

1898 B, p. 318.

Roger, O. 1896 A, p. 5. (Syn. of *M. conquistus*.)

Trouessart, E. L. 1898 A, p. 1255. (Syn. of *M. conquistus*.)

Cretaceous (Laramie); Wyoming.

***Meniscoëssus sculptus* (Marsh).**

Marsh, O. C. 1889 D, p. 87, pl. iii, figs. 7-13. (Halodon.)

Dana, J. D. 1896 A, p. 853, figs. 1441 a-c. (Halodon.)

Marsh, O. C. 1892 B, p. 261, pl. v, fig. 4. (Halodon.)

Osborn, H. F. 1891 A, p. 128, figs. 1,a, 5,a. (Halodon.)

1891 B, p. 44.

1891 E, p. 600, fig. 2.

1898 B, p. 318.

Roger, O. 1896 A, p. 5. (Syn. of *M. conquistus*.)

Trouessart, E. L. 1898 A, p. 1255. (Syn. of *M. conquistus*.)

Cretaceous (Laramie); Wyoming.

ORACODON Marsh. Type *O. anceps* Marsh.

Marsh, O. C. 1889 F, p. 178.

Osborn, H. F. 1891 B.

1893 B, p. 317. (Syn.? of *Meniscoëssus*.)

Zittel, K. A. 1893 B, p. 83.

***Oracodon anceps* Marsh.**

Marsh, O. C. 1889 F, p. 178, pl. viii, figs. 13-16.

1892 B, p. 256, pl. vii, figs. 6, 7.

Marsh, O. C. 1897 C, p. 521, fig. 91.

Osborn, H. F. 1891 A, p. 131.

1891 B, p. 45.

1891 E, p. 605.

1898 B, p. 319.

Roger, O. 1896 A, p. 5.

Trouessart, E. L. 1898 A, p. 1256.

Cretaceous (Laramie); Wyoming.

Oracodon conulus Marsh.

Marsh, O. C. 1892 B, p. 256, pl. vii, fig. 8.
 Dana, J. D. 1896 A, p. 853, fig. 1439 a, b.
 Osborn, H. F. 1893 B, p. 319.
 Roger, O. 1896 A, p. 5.

Trouessart, E. L. 1896 A, p. 1256.
 Walcott, C. D. 1900 A, p. 29.
 Zittel, K. A. 1893 B, p. 84, fig. 63.
 Cretaceous (Laramie); Wyoming.

CAMPTOMUS Marsh. Type *C. amplus* Marsh.

Marsh, O. C. 1889 D, p. 87.
 Nicholson and Lydekker 1889 A, p. 1268.

Camptomus amplus Marsh.

Marsh, O. C. 1889 D, p. 87, pl. v. figs. 1-4, 18-23.
 Osborn, H. F. 1891 A, p. 131.

Osborn, H. F. 1891 B, p. 45.
 Osborn, H. F. 1891 E, p. 605.
 Trouessart, E. L. 1896 A, p. 1256.
 Woodward, A. S. 1898 B, p. 253.
 Zittel, K. A. 1893 B, p. 73, fig. 44.
 Cretaceous (Laramie); Wyoming.

POLYMASTODONTINÆ.

Osborn and Earle 1896 A, p. 11.

Unless otherwise indicated, the following authorities employ for this group, regarded as of family value, the term *Polymastodontidae*.

Cope, E. D. 1884 Y, p. 687.
 1888 J.
 1888 CC, p. 307.
 Haeckel, E. 1896 A, p. 470. (*Polymastodontida*.)
 Lydekker, R. 1887 A, p. 199.

Nicholson and Lydekker 1889 A, p. 1269.
 Osborn, H. F. 1887 F, p. 286.
 1888 C.
 1888 G, pp. 213, 221.
 Roger, O. 1896 A, p. 6.
 Schlosser, M. 1890 C, p. 277.
 Trouessart, E. L. 1896 A, p. 1253.
 Woodward, A. S. 1898 B, p. 252.
 Zittel, K. A. 1893 B, p. 85.

CATOPSALIS Cope. Type *C. foliatus* Cope.

Cope, E. D. 1882 U, p. 416.
 1882 W, p. 520.
 1884 O, pp. xxxv, 168, 170, 733.

Catopsalis foliatus Cope.

Cope, E. D. 1882 U, p. 416.
 1884 O, p. 171, pl. xxliid, fig. 2.
 1884 Y, p. 688, fig. 5. (*Polymastodon*.)

Cope, E. D. 1888 CC, p. 302. (*Polymastodon*.)
 Matthew, W. D. 1897 C, p. 263.
 1899 A, p. 28.
 Osborn and Earle 1896 A, p. 11. (*Polymastodon*.)
 Roger, O. 1896 A, p. 7. (*Polymastodon*.)
 Trouessart, E. L. 1896 A, p. 1254. (*Polymastodon*.)
 Eocene (Puerco); New Mexico.

TÆNIOLABIS Cope. Type *T. sulcatus* Cope.

Cope, E. D. 1882 Z, p. 604.
 1884 O, p. 193. (*Tæniolabis*.)
 1885 M, p. 493. (Syn? of *Polymastodon*.)
 Zittel, K. A. 1893 B, p. 85. (Syn. of *Polymastodon*.)
 By most authors this genus is included with *Polymastodon*, and to this the student is referred.

Tæniolabis sulcatus Cope.

Cope, E. D. 1882 Z, p. 604.
 1884 O, p. 193, pl. xxliii c, fig. 7. (*T. scalper*.)
 1885 M, p. 493. (*T. scalper*, syn.? of *Polymastodon taënsis*).

Roger, O. 1896 A, p. 6. (Syn. of *Polymastodon taënsis*.)
 Eocene (Puerco); New Mexico.
 After 1884 Prof. Cope regarded this species as based on what was probably an incisor tooth of *Polymastodon taënsis* Cope. Should Cope's identification eventually prove correct, the name *Tæniolabis* will supersede *Polymastodon*.
 The name *scalper* appears to be merely a substitute for the earlier *T. sulcatus*.

POLYMASTODON Cope. Type *P. taënsis* Cope.

Cope, E. D. 1882 AA, p. 684.
 1884 O, pp. xxxv, 168, 787.
 1884 Y, p. 688.
 1888 I, p. 11.
 1889 L.
 Lydekker, R. 1887 A, p. 200.
 Nicholson and Lydekker 1889 A, p. 1269.
 Osborn, H. F. 1887 A.
 1888 C.
 1891 E, p. 610.
 1893 B.
 1898 E.

Osborn and Earle 1896 A, p. 11.
 Steinmann and Döderlein 1890 A, p. 700.
 Tomes, C. S. 1898 A, p. 330.
 Trouessart, E. L. 1896 A, p. 1253.
 Winge, H. 1893 B, p. 78.
 Woodward, A. S. 1898 B, p. 252.
 Zittel, K. A. 1893 B, p. 85.

Polymastodon attenuatus Cope.

Cope, E. D. 1885 M, p. 494.
 1888 CC, p. 302.
 Matthew, W. D. 1897 C, p. 263.

Osborn and Earle 1896 A, p. 12, fig. 1A.
 Roger, O. 1896 A, p. 7.
 Trouessart, E. L. 1896 A, p. 1253.
 Woodward, A. S. 1896 B, p. 253, fig. 149.
 Eocene (Puerco); New Mexico.

Polymastodon fissidens Cope.

Cope, E. D. 1884 K, p. 322. (Catopsalis.)
 1884 Y, p. 688.
 1888 CC, p. 302.
 Matthew, W. D. 1897 C, p. 263.
 Osborn and Earle 1896 A, pp. 12, 14.
 Roger, O. 1896 A, p. 7.
 Trouessart, E. L. 1896 A, p. 1253.
 Eocene (Torrejon); New Mexico.

Polymastodon latimolis Cope.

Cope, E. D. 1886 J, p. 385.
 1888 CC, p. 302.
 Matthew, W. D. 1899 A, p. 28.
 Osborn and Earle 1896 A, pp. 11, 12.
 Roger, O. 1896 A, p. 7.
 Trouessart, E. L. 1896 A, p. 1253.
 Eocene (Puerco); New Mexico.

Polymastodon selenodus Osborn and Earle.

Osborn and Earle 1896 A, pp. 12, 15.

Matthew, W. D. 1897 C, p. 263.
 1899 A, p. 28.
 Roger, O. 1896 A, p. 7.
 Trouessart, E. L. 1896 A, p. 1254.
 Eocene (Puerco); New Mexico.

Polymastodon taënsis Cope.

Cope, E. D. 1882 AA, p. 684.
 1882 AA, p. 685. (Catopsalis pollux.)
 1883 E. (Catopsalis pollux.)
 1884 O, p. 732, pl. xxxiii c, fig. 6 (Polymastodon taënsis); p. 734, pl. xxiii c, figs. 1-5 (Catopsalis pollux).
 1884 Y, p. 689, figs. 3, 4.
 1885 M, p. 493.
 1888 I, p. 11, fig. 8.
 1888 CC, p. 302.
 1889 C, p. 270, fig. 92.
 Lydekker, R. 1887 A, p. 200, fig. 32.
 Matthew, W. D. 1897 C, p. 263.
 1899 A, p. 28.
 Osborn and Earle 1896 A, pp. 11, 12, fig. 1, C.
 Roger, O. 1896 A, p. 6.
 Trouessart, E. L. 1896 A, p. 1253.
 Woodward, A. S. 1896 B, p. 253, fig. 149.
 Zittel, K. A. 1893 B, p. 86, fig. 66.
 Eocene (Puerco); New Mexico.

Subclass EUTHERIA Gill.

Gill, T. 1872 B, p. vi.
 Cope, E. D. 1887 Q.
 1889 R, p. 874.
 1891 N, pp. 65, 66.
 1896 B, p. 104.
 Flower, W. H. 1893 A.
 1883 D, p. 333.
 Flower and Lydekker 1891 A, p. 173.
 Gill, T. 1888 A.
 Haeckel, E. 1896 A, p. 467. (Prodidelphia.)

Osborn, H. F. 1893 A, p. 391.
 1894 A. (Cenoplacentalia, Mesoplacentalia.)
 1896 L.
 1899 B, p. 92.
 Osborn and Earle 1896 A, p. 3. (Cenoplacentalia, Mesoplacentalia.)
 Schlosser, M. 1893 A, p. 301.
 Tomes, C. S. 1898 A, p. 306.
 Woodward, A. S. 1896 B, p. 254. (Metatheria.)
 Zittel, K. A. 1893 B, p. 117. (>Placentalia.)

Superorder DIDELPHIA Blainville.

Cope, E. D. 1889 R, p. 874.
 1896 B, p. 104.
 Flower W. H. 1883 A. (Metatheria, Didelphia.)
 1883 D, p. 378. (Metatheria.)
 1885 A.
 Flower and Lydekker 1891 A, p. 128. (Metatheria, Didelphia.)
 Gadow, H. 1898 A, p. 40. (Metatheria.)
 Gill, T. 1872 A, p. 306.
 1872 B, pp. 26, 46.

Hay, O. P. 1899 F, p. 682.
 Huxley, T. H. 1872 A, p. 276.
 1880 B. (Metatheria.)
 Nicholson and Lydekker 1889 A, p. 1270.
 Osborn, H. F. 1893 A, p. 391. (Metatheria.)
 1896 L. (Metatheria.)
 Parker, W. K. 1885 A, p. 59. (Metatheria.)
 Wilson and Hill 1897 A, p. 429. (Metatheria.)
 Woodward, A. S. 1896 B, p. 254. (Metatheria.)

Order MARSUPIALIA.

Baird, S. F. 1857 A, p. 230. (Marsupialia.)
 Baur, G. 1885 K, p. 475.
 Bensley, B. A. 1900 A, p. 558.
 Cope, E. D. 1873 E, p. 644.
 1880 B, p. 453.
 1884 E.
 1884 O, pp. 167, 788.

Cope, E. D. 1884 Y.
 1888 D, p. 255.
 1889 C.
 1889 R, pp. 874, 876 (Pantotheria, in part; Marsupialia.)
 1891 N, p. 69 (Marsupialia); p. 72 (Pantotheria).

- Flower, W. H. 1869 A, p. 267.
 1876 B, xiii, p. 327.
 1885 A.
- Flower and Lydekker 1891 A, p. 128.
- Gaudry, A. 1878 B, p. 9.
- Gegenbaur, C. 1898 A.
- Gill, T. 1872 A, p. 305.
 1872 B, pp. 25, 46. (Didelphia.)
- Gill and Coues 1877 A, p. 1072.
- Gruber, W. 1859 A.
- Haeckel, E. 1899 A, p. 479.
- Huxley, T. H. 1870 A.
 1872 A, p. 273 (Metatheria); p. 276 (Didelphia).
- Kollman, J. 1888 A.
- Kükenthal, W. 1891 A, p. 368.
 1892 A.
- Leche, W. 1893 A, p. 521.
 1893 B.
 1896 A, p. 83.
 1896 A, p. 292.
 1896 B.
- Lydekker, R. 1887 A, p. ix (Pantotheria, in part); p. 146 (Marsupialia).
 1896 B.
 1900 A, p. 922.
- Marsh, O. C. 1877 E.
 1880 F, p. 239. (Pantotheria, in part.)
 1885 C. (Pantotheria, in part.)
 1887 A, p. 345. (Pantotheria, in part; Marsupialia.)
- Nicholson and Lydekker 1889 A, p. 1272.
- Osborn, H. F. 1888 G, p. 258.
 1891 A, p. 125. (Pantotheria, in part.)
 1891 C, p. 780. (Pantotheria, in part.)
 1891 E, p. 599. (Pantotheria, in part.)
 1893 A, p. 379.
 1893 D.
 1896 L.
 1900 C, p. 566.
- Owen, R. 1838 A, p. 120.
 1839 A.
 1839 D.
- Owen, R. 1843 A, p. 72.
 1845 B, p. 273.
 1851 C, p. 733.
 1866 B, p. 328.
 1868 A, p. 235.
 1871 A.
- Parker, W. K. 1868 A, p. 195.
- Paull, S. 1899 A, p. 147.
- Pollard, E. C. 1893 A.
- Reh, L. 1895 A, p. 163.
- Roger, O. 1889 A.
- Röse, C. 1892 A, p. 638.
 1892 D, p. 508.
 1892 E.
- Ryder, J. 1878 A, p. 49.
- Schlosser, M. 1886 C.
 1889 A.
 1890 A.
 1890 C.
 1890 D.
 1892 A.
 1893 A.
- Schmidt, O. 1886 A, p. 93.
- Schwalbe, J. 1894 A.
- Slade, D. D. 1888 A, p. 242.
- Steinmann and Döderlein 1890 A, p. 700.
- Thomas, O. 1888 A.
 1892 B.
- Thompson, J. A. 1897 A, p. 43.
- Tims, H. W. M. 1896 A.
- Tomes, C. S. 1896 A, p. 562.
- Tornier, G. 1890 A.
- Trouessart, E. L. 1896 A, p. 1155.
- Turner, W. 1899 A.
- Weyhe, — 1875 A, p. 107.
- Wilson and Hill 1897 A, p. 427.
- Winge, H. 1893 C, pp. 61, 86.
- Woodward, A. S. 1896 B, p. 255.
- Woodward, M. F. 1893 A.
 1896 B.
- Wortman, J. L. 1886 A, p. 493.
- Zittel, K. A. 1893 B, p. 86 (Marsupialia); pp. 95, 723, 724 (Pantotheria, in part).

Suborder POLYPROTODONTIA.

- Flower and Lydekker 1891 A, p. 133.
- Gadow, H. 1898 A, p. 40.
- Lydekker, R. 1887 A, p. 254.
- Nicholson and Lydekker 1889 A, p. 1272.
- Owen, R. 1868 A, p. 238. ("Polyprotodont.")
 1871 A, p. 88. ("Polyprotodont section.")
- Roger, O. 1896 A, p. 12.
- Woodward, A. S. 1896 B, p. 255.

STAGODONTIDÆ.

- Marsh, O. C. 1889 F, p. 178.
- Cope, E. D. 1892 J, p. 760. (Thliodontidæ.)
- Marsh, O. C. 1892 B, pp. 256, 257.
- Osborn, H. F. 1891 B, p. 45.
 1891 C, p. 780.
 1892 D.

STAGODON Marsh. Type *S. nitor* Marsh.

- Marsh, O. C. 1889 F, p. 178.
- Ameghino, F. 1894 A, p. 335.
- Cope, E. D. 1892 U, p. 760.
- Marsh, O. C. 1891 I, p. 240.
 1892 B, p. 257.
- Osborn, H. F. 1891 B, p. 45.
 1891 C, p. 780.
 1893 B, p. 324.
- Trouessart, E. L. 1896 A, p. 670.
- Zittel, K. A. 1893 B, p. 510.
- Stagodon nitor Marsh.**
- Marsh, O. C. 1889 F, p. 178, pl. vii, figs. 22-25.
 1892 B, p. 262, pl. viii, figs. 1, 2.
- Osborn, H. F. 1891 A, p. 131, fig. 8a.
 1891 B, p. 45.

Osborn, H. F. 1891 C, p. 780, fig. 1.

1891 E, p. 608, fig. 12.

1893 B, p. 323.

Roger, O. 1896 A, p. 90.

Zittel, K. A. 1893 B, p. 511, fig. 425A.

Cretaceous (Laramie); Wyoming.

Stagodon tumidus Marsh.

Marsh, O. C. 1889 F, p. 178, pl. vii, figs. 17-21.

Dana, J. D. 1896 A, p. 863, fig. 1438 a, b.

Marsh, O. C. 1892 B, p. 262, pl. viii, fig. 3.

Roger, O. 1896 A, p. 89.

Cretaceous (Laramie); Wyoming.

Stagodon validus Marsh.

Marsh, O. C. 1892 B, p. 256, pl. viii, figs. 4-7.

Cope, E. D. 1892 U, p. 760.

Dana, J. D. 1896 A, p. 863, fig. 1437 a-c.

Marsh, O. C. 1897 C, p. 521, fig. 92.

Osborn, H. F. 1891 B, p. 45.

Roger, O. 1896 A, p. 90.

Zittel, K. A. 1893 B, p. 511, figs. 425B, 426.

Cretaceous (Laramie); Wyoming.

Thlædon Cope. Type *T. padanacus* Cope.

Cope, E. D. 1892 U, p. 759.

1892 D.

Osborn, H. F. 1896 A, p. 388.

1893 B, pp. 324, 328.

1893 D.

Zittel, K. A. 1893 B, p. 511.

Thlædon padanicus Cope.

Cope, E. D. 1892 U, p. 759, pl. xxii.

Roger, O. 1896 A, p. 90.

Trouessart, E. L. 1898 A, p. 669.

Cretaceous (Laramie); Wyoming.

Platacodon Marsh. Type *P. nanus* Marsh.

Marsh, O. C. 1889 F, p. 178.

1892 B, p. 259.

Platacodon nanus Marsh.

Marsh, O. C. 1889 F, p. 178, pl. viii, figs. 4-12.

Hatcher, J. B. 1900 A, p. 719.

Marsh, O. C. 1892 B, p. 262, pl. xi, figs. 6, 7.

Osborn, H. F. 1891 A, p. 132, fig. 8b.

1891 B, p. 45.

1891 E, p. 609, fig. 12b.

1893 B, p. 323.

Cretaceous (Laramie); Wyoming.

By Hatcher this genus has been referred to the fishes.

CIMOLESTIDÆ.

Marsh, O. C. 1892 B, p. 257.

Trouessart, E. L. 1898 A, p. 1202. (Epanorthidæ, in part.)

Pediomys Marsh. Type *P. elegans* Marsh.

Marsh, O. C. 1889 D, p. 89.

Nicholson and Lydekker 1889 A, p. 1277.

Osborn, H. F. 1891 A, p. 131.

1891 B, p. 45.

1891 E, p. 609.

1893 B, p. 324.

Zittel, K. A. 1893 B, p. 102.

Pediomys elegans Marsh.

Marsh, O. C. 1889 D, p. 89, pl. iv, figs. 23-25.

Marsh, O. C. 1892 B, p. 262, pl. x.

Osborn, H. F. 1891 A, p. 131.

1891 B, p. 45.

1891 E, p. 606.

1893 B, p. 323.

Roger, O. 1896 A, p. 15.

Trouessart, E. L. 1898 A, p. 1249.

Cretaceous (Laramie); Wyoming.

Batodon Marsh. Type *B. tenuis* Marsh.

Marsh, O. C. 1892 B, p. 258.

Osborn, H. F. 1893 B, p. 324.

Zittel, K. A. 1893 B, p. 106.

Batodon tenuis Marsh.

Marsh, O. C. 1892 B, p. 258, pl. x, fig. 6; pl. xi, fig. 2.

Dana, J. D. 1896 A, p. 863, fig. 1436 a-c.

Osborn, H. F. 1893 B, p. 324.

Roger, O. 1896 A, p. 19.

Trouessart, E. L. 1898 A, p. 1204.

Walcott, C. D. 1900 A, p. 23.

Zittel, K. A. 1893 B, p. 106, fig. 92.

Cretaceous (Laramie); Wyoming.

Didelphodon Marsh. Type *D. vorax* Marsh.

Marsh, O. C. 1889 D, p. 88.

1889 F, p. 179. (Didelphops, to replace Didelphodon.)

1891 I, p. 15. (Didelphops.)

Nicholson and Lydekker 1889 A, p. 1277.

Osborn, H. F. 1891 B.

1891 E, p. 610.

1893 B, p. 323.

Roger, O. 1896 A, p. 18. (*Didelphops*.)

Woodward, M. F. 1896 A, p. 586.

Zittel, K. A. 1893 B, p. 105.

Didelphodon comptus Marsh.

Marsh, O. C. 1889 D, p. 88, pl. iv, figs. 5-7, 20-22.

Dana, J. D. 1896 A, p. 853, fig. 1433 a-c. (*Didelphops*.)

Marsh, O. C. 1892 B, p. 262, pl. x, figs. 1, 2. (*Didelphops*.)

Osborn, H. F. 1891 A, p. 131. (*Didelphops*.)

1891 B, p. 45. (*Didelphops*.)

1891 E, p. 606. (*Didelphops*.)

Roger, O. 1896 A, p. 18. (*Didelphops*.)

Cretaceous (Laramie); Wyoming.

Didelphodon ferox Marsh.

Marsh, O. C. 1889 D, p. 88, pl. iv, figs. 4, 26-28.

Dana, J. D. 1896 A, p. 853, fig. 1435 a, b. (*Didelphops*.)

Marsh, O. C. 1892 B, p. 262, pl. ix, figs. 7, 8. (*Didelphops*.)

Osborn, H. F. 1891 A, p. 131. (*Didelphops*.)

1891 B, p. 45. (*Didelphops*.)

1891 E, p. 606. (*Didelphops*.)

Roger, O. 1896 A, p. 18. (*Didelphops*.)

Cretaceous (Laramie); Wyoming.

Didelphodon vorax Marsh.

Marsh, O. C. 1889 D, p. 88, pl. iv, figs. 1-3.

Dana, J. D. 1896 A, p. 853, fig. 1434. (*Didelphops*.)

Marsh, O. C. 1892 B, p. 262, pl. ix, fig. 1. (*Didelphops*.)

Osborn, H. F. 1891 A, p. 131. (*Didelphops*.)

1891 B, p. 45. (*Didelphops*.)

1891 E, p. 606. (*Didelphops*.)

1893 B, p. 323, fig. 42. (*Didelphops*.)

Zittel, K. A. 1893 B, p. 105, fig. 87.

Cretaceous (Laramie); Wyoming.

CIMOLESTES Marsh. Type *C. incisus* Marsh.

Marsh, O. C. 1889 D, p. 89.

1889 F, p. 179.

Nicholson and Lydekker 1889 A, p. 1277.

Osborn, H. F. 1891 A, p. 131.

1891 B, p. 45.

1891 E, p. 610.

1893 B, p. 325.

Zittel, K. A. 1893 B, p. 105.

Cimolestes curtus Marsh.

Marsh, O. C. 1889 D, p. 89, pl. iv, figs. 8-11.

Osborn, H. F. 1891 A, p. 131.

1891 B, p. 45.

1891 E, p. 606.

Roger, O. 1896 A, p. 18.

Trouessart, E. L. 1896 A, p. 1204.

Cretaceous (Laramie); Wyoming.

Cimolestes incisus Marsh.

Marsh, O. C. 1889 D, p. 89, pl. iv, figs. 12-19.

Dana, J. D. 1896 A, p. 853, fig. 1432 a-d.

Marsh, O. C. 1892 B, p. 262, pl. x, fig. 5.

Osborn, H. F. 1891 A, p. 131.

1891 B, p. 45.

1891 E, p. 606.

1893 B, p. 323, fig. 4.

Roger, O. 1896 A, p. 18.

Trouessart, E. L. 1896 A, p. 1204.

Zittel, K. A. 1893 B, p. 105, fig. 89.

Cretaceous (Laramie); Wyoming.

TELACODON Marsh. Type *T. laevis* Marsh.

Marsh, O. C. 1892 B, p. 258.

Osborn, H. F. 1893 B, p. 324.

Zittel, K. A. 1893 B, p. 106.

Telacodon laevis Marsh.

Marsh, O. C. 1892 B, p. 258, pl. ix, figure; pl. x, figure.

Osborn, H. F. 1893 B, p. 323.

Roger, O. 1896 A, p. 19.

Trouessart, E. L. 1898 A, p. 1204.

Zittel, K. A. 1893 B, p. 106, fig. 90.

Cretaceous (Laramie); Wyoming.

Telacodon praestans Marsh.

Marsh, O. C. 1892 B, p. 258, pl. ix, figs. 2, 3; pl. xi fig. 1.

1897 C, p. 521, fig. 90.

Roger, O. 1896 A, p. 19.

Trouessart, E. L. 1898 A, p. 1204.

Walcott, C. D. 1900 A, p. 23.

Zittel, K. A. 1893 B, p. 106, fig. 91.

Cretaceous (Laramie); Wyoming.

TRICONODONTIDÆ.

Marsh, O. C. 1887 A, p. 341.

Cope, E. D. 1889 C, p. 226.

Haeckel, E. 1896 A, p. 470. (*Triconodontida*.)

Lydekker, R. 1887 A, p. 257.

Marsh, O. C. 1887 A, p. 340. (*Spalacotheriidae*, *Tinodontidae*.)

Nicholson and Lydekker 1889 A, p. 1277.

Osborn, H. F. 1887 F, p. 287.

1888 G, p. 235.

Osborn, H. F. 1888 G, pp. 227, 241.

1893 D. (*Triconodonta*.)

1896 A, p. 147. (*Triconodonta*.)

1896 B, p. 177. (*Triconodonta*.)

Roger, O. 1896 A, p. 12.

Steinmann and Döderlein 1890 A, p. 697.

Trouessart, E. L. 1896 A, p. 1249.

Winge, H. 1893 C, p. 75.

Zittel, K. A. 1893 B, p. 97. (*Triconodonta*.)

TRICONODONTINÆ nom. nov.

Goodrich, E. S. 1894 A, p. 420. (*Amphilestes*.)

Osborn, H. F. 1888 G, p. 228. (*Amphilestinae*.)

Winge, H. 1893 C, p. 76. (*Amphilestidae*.)

TRICONODON Owen. Type *T. mordax* Owen.

Owen, R., 1859, Encyc. Brit., ed. 8., xvii, p. 161.

Cope, E. D. 1888 D, p. 257.

1889 C, p. 227.

Leche, W. 1896 B, p. 280.

Lydekker, R. 1887 A, p. 258.

Marsh, O. C. 1879 F, p. 215.

1880 A, p. 237.

Nicholson and Lydekker 1889 A, p. 1277.

Osborn, H. F. 1887 F, p. 287.

1888 C, p. 235.

1888 F, p. 1071.

1888 G, p. 228.

1893 D, p. 22.

1896 R, p. 320.

Owen, R. 1871 A, p. 56.

Schlosser, M. 1890 C, p. 242, fig. I, 5.

Scott, W. B. 1892 A, p. 405.

Steinmann and Döderlein 1890 A, p. 697.

Thomas, O. 1892 B.

Trouessart, E. L. 1898 A, p. 1249.

Winge, H. 1893 C, p. 77.

Zittel, K. A. 1893 B, p. 97.

Triconodon bisulcus Marsh.

Marsh, O. C. 1880 F, p. 237.

1887 A, p. 348.

Roger, O. 1896 A, p. 14.

Trouessart, E. L. 1898 A, p. 1250.

Jurassic; Wyoming.

PRIACODON Marsh. Type *Tinodon ferox* Marsh.

Marsh, O. C. 1887 A, p. 341.

Nicholson and Lydekker 1889 A, pp. 1275, 1277.

Osborn, H. F. 1887 F, p. 287. (Syn. of Triconodon.)

1888 G, p. 229.

Trouessart, E. L., 1898 A, p. 1250.

Winge, H. 1893 C, p. 76.

Zittel, K. A. 1893 B, p. 98.

Priacodon ferox Marsh.

Marsh, O. C. 1880 F, p. 236. (Tinodon.)

Cope, E. D. 1889 C, p. 227, pl. viii, fig. 4; text fig. 51. (Triconodon.)

Marsh, O. C. 1887 A, p. 341, pl. x, fig. 9.

Osborn, H. F. 1888 G, p. 229, fig. 10 a.

Roger, O. 1896 A, p. 13. (Priacodon, Tinodon.)

Trouessart, E. L. 1898 A, p. 1250. (Syn. of Triconodon ferox Owen.)

Woodward, A. S. 1896 B, p. 259, fig. 152.

Jurassic; Wyoming.

TINODONTINÆ nom. nov.

Goodrich, E. S. 1894 A, p. 417. (Phascolotherium.)

Marsh, O. C. 1879 F, p. 216. (Tinodontidae.)

1887 A, p. 340. (Tinodontidae.)

Osborn, H. F. 1887 F, p. 288. (Phascolotheriidae.)

1888 G, p. 229. (Phascolotheriinae.)

Owen, R. 1846 B, p. 61. (On Phascolotherium.)

Trouessart, E. L. 1898 A, p. 1249. (Triconodontidae, in part.)

TINODON Marsh. Type *T. bellus* Marsh.

Marsh, O. C. 1879 F, p. 216.

1886 C.

1887 A, p. 340.

Osborn, H. F. 1887 F, p. 288.

1888 C, p. 235.

1888 F, p. 1075.

1888 G, p. 229.

Winge, H. 1893 C, p. 76.

Zittel, K. A. 1893 B, p. 98.

Tinodon bellus Marsh.

Marsh, O. C. 1879 F, p. 216, figure.

1887 A, p. 340, pl. x, fig. 1.

Osborn, H. F. 1888 G, p. 229, figure.

Roger, O. 1896 A, p. 13.

Trouessart, E. L. 1898 A, p. 1251.

Jurassic; Wyoming?

Tinodon lepidus Marsh.

Marsh, O. C. 1879 G, p. 396.

1887 A, p. 343.

Roger, O. 1896 A, p. 13.

Trouessart, E. L. 1898 A, p. 1251.

Jurassic; Wyoming.

Tinodon robustus Marsh

Marsh, O. C. 1879 G, p. 397.

1887 A, p. 343.

Roger, O. 1896 A, p. 13.

Trouessart, E. L. 1898 A, p. 1251

Jurassic; Wyoming.

SPALACOTHERIINÆ.

Osborn, H. F. 1888 G, p. 229.

Lydekker, R. 1887 A, p. 292. (Spalacotheriidae.)

Marsh, O. C. 1887 A, p. 340. (Spalacotheriidae.)

Nicholson and Lydekker 1889 A, p. 1277. (Spalacotheriidae.)

Owen, R. 1885 C, p. 426. (On Spalacotherium.)

MENACODON Marsh. Type *M. rarus* Marsh.

- Marsh, O. C. 1887 A, p. 340.
 Ameghino, F. 1896 A, p. 467. (Syn. of Tinodon.)
 Osborn, H. F. 1888 F, p. 1075.
 1888 G, p. 230.
 Winge, H. 1893 C, p. 76.
 Zittel, K. A. 1893 B, p. 98. (Syn. of Tinodon.)

***Menacodon rarus* Marsh.**

- Marsh, O. C. 1887 A, p. 340, pl. x, figs. 5, 6.

- Cope, E. D. 1889 C, p. 227, fig. 62.
 Osborn, H. F. 1888 G, p. 230, fig. 21.
 Roger, O. 1896 A, p. 13.
 Trouessart, E. L. 1896 A, p. 1251.
 Walcott, C. D. 1900 A, p. 23.
 Jurassic; Wyoming.

AMPHITHERIIDÆ.

- Owen, R. 1846 B, p. 29.
 Goodrich, E. S. 1894 A, p. 409. (Amphitherium.)
 Lydekker, R. 1887 A, p. 269.
 1896 B, p. 52.
 Marsh, O. C. 1887 A, p. 338. (Diplocynodontidæ.)
 Nicholson and Lydekker 1889 A, 1273.

- Osborn, H. F. 1887 F, p. 289. (Diplocynodontidæ.)
 1888 C, p. 234.
 1888 F, p. 1078. (Diplocynodontidæ.)
 1888 G, p. 230.
 Owen, R. 1846 A, p. 287. (Genus Amphitherium.)
 Roger, O. 1896 A, p. 14.
 Trouessart, E. L. 1896 A, p. 1246.
 Zittel, K. A. 1893 B, p. 100.

DICROCYNODON Marsh. Type *Diplocynodon victor* Marsh.

- Marsh, O. C. in Osborn, H. F. 1888 G, p. 263. (To replace Diplocynodon, preoccupied.)
 1880 F, p. 236. (Diplocynodon.)
 1887 A, p. 338. (Diplocynodon.)
 1889 I, p. 14.
 1897 C, p. 508. (Diplocynodon.)
 Osborn, H. F. 1887 D. (Diplocynodon.)
 1893 D, p. 17.
 1897 C, p. 1000.
 Schlessner, M. 1890 C, p. 242. (Diacynodon.)
 Zittel, K. A. 1893 B, p. 99.

***Diplocynodon victor* Marsh.**

- Marsh, O. C. 1880 F, p. 236, figure. (Diplocynodon.)
 1887 A, p. 338, pl. x, fig. 3. (Diplocynodon.)
 1897 C, p. 508, fig. 69. (Diplocynodon.)
 Osborn, H. F. 1888 G, p. 232, fig. 22. (Diplocynodon.)
 Roger, O. 1896 A, p. 14.
 Trouessart, E. L. 1896 A, p. 1251.
 Woodward, A. S. 1896 B, p. 259, fig. 152.
 Zittel, K. A. 1893 B, p. 99, fig. 78.
 Jurassic; Wyoming.

DODODON Marsh. Type *D. striatus* Marsh.

- Marsh, O. C. 1881 F, p. 512.
 1887 A, p. 339.
 Osborn, H. F. 1888 G, p. 233.
 Zittel, K. A. 1893 B, p. 99.

***Dodon striatus* Marsh.**

- Marsh, O. C. 1881 F, p. 512.
 1887 A, p. 339, pl. x, fig. 2.

- Osborn, H. F. 1888 G, p. 232, fig. 23.
 Roger, O. 1896 A, p. 14.
 Trouessart, E. L. 1896 A, p. 1252.
 Woodward, A. S. 1896 B, p. 259, fig. 152.
 Jurassic; Wyoming.

ENNACODON Marsh. Type *Enneodon crassus* Marsh.

- Marsh, O. C. 1899 I, p. 15. (To replace *Enneodon* Marsh, preoccupied.)
 1887 A, p. 339. (Enneodon.)
 Nicholson and Lydekker 1889 A, p. 1277. (Enneodon.)
 Osborn, H. F. 1888 G, p. 232. (Enneodon.)
 Zittel, K. A. 1893 B, p. 99. (Ennacodon.)

***Ennacodon affinis* Marsh.**

- Marsh, O. C. 1887 A, p. 339. (Enneodon.)
 Roger, O. 1896 A, p. 14.
 Trouessart, E. L. 1896 A, p. 1252.

- Walcott, C. D. 1900 A, p. 23. (Enneodon.)
 Jurassic; Wyoming.

***Ennacodon crassus* Marsh.**

- Marsh, O. C. 1887 A, p. 339, pl. x, fig. 4. (Enneodon.)
 Osborn, H. F. 1888 G, p. 232, fig. 24. (Enneodon.)
 Roger, O. 1896 A, p. 14.
 Trouessart, E. L. 1896 A, p. 1252.
 Walcott, C. D. 1900 A, p. 23. (Enneodon.)
 Jurassic; Wyoming.

PAURODONTIDÆ.

- Marsh, O. C. 1887 A, p. 341.
 Osborn, H. F. 1887 F, p. 289. (Peralestidæ, Paurodontidæ.)
 1888 G, p. 233. (Peralestidæ.)

- Trouessart, E. L. 1896 A, p. 1246. (Amphitheriidæ, in part.)
 Woodward, M. F. 1896 A, p. 587. (On Peralestes.)

PAURODON Marsh. Type *P. valens* Marsh.

- Marsh, O. C. 1887 A, p. 342.
 Ameghino, F. 1899 A, p. 571.
 Cope, E. D. 1888 D, p. 257.
 1899 C, p. 236.
 Osborn, H. F. 1887 F, p. 289.
 1888 G, p. 233.
 Winge, H. 1893 C, p. 76.

Paurodon valens Marsh.

- Marsh, O. C. 1887 A, p. 342, pl. ix, figs. 7, 8.
 Osborn, H. F. 1888 G, p. 233, figs. 26 a, b.
 Roger, O. 1896 A, p. 15.
 Trouessart, E. L. 1898 A, p. 1247.
 Walcott, C. D. 1900 A, p. 23.
 Jurassic; Wyoming.

DRYOLESTIDÆ.

- Marsh, O. C. 1879 G, p. 397.
 Ameghino, F. 1896 A, p. 409. (Stylacodontidæ.)
 Lydekker, R. 1887 A, p. 289. (Stylodontidæ.)
 Marsh, O. C. 1879 E, p. 60. (Stylodontidæ.)
 1887 A, p. 334.
 Nicholson and Lydekker 1889 A, p. 1410. (Stylodontidæ.)

- Osborn, H. F. 1887 F, p. 290. (Stylodontidæ.)
 1888 A, p. 236. (Stylacodontidæ.)
 1888 C, p. 232. (Stylodontidæ.)
 1888 G, p. 236. (Stylacodontidæ.)
 Steinmann and Döderlein 1890 A, p. 698. (Stylacodontidæ.)
 Trouessart, E. L. 1898 A, p. 1246. (Amphitheriidæ, in part.)

STYLACODON Marsh. Type *S. gracilis* Marsh.

- Marsh, O. C. 1879 E, p. 60.
 Ameghino, F. 1896 A, p. 454.
 Lydekker, R. 1887 A, p. 289 (Stylacodon); p. 290 (Stylodon).
 Marsh, O. C. 1886 C.
 1887 A, p. 335.
 Nicholson and Lydekker 1889 A, p. 1276. (Amblotherium.)
 Osborn, H. F. 1887 D. (Stylodon.)
 1887 F, p. 290. (Syn.? of Stylodon.)
 1888 A, p. 300.
 1888 G, p. 207 (Stylodon); pp. 236, 243 (Stylacodon).
 Owen, R. 1866 D. (Stylodon, not of Beck, 1837.)
 Zittel, K. A. 1893 B, p. 102. (Syn.? of Dryolestes.)

Stylacodon gracilis Marsh.

- Marsh, O. C. 1879 E, p. 60.
 1887 A, pl. ix, fig. 1.
 1897 C, p. 508, fig. 68.
 Osborn, H. F. 1888 G, p. 237, fig. 26.
 Roger, O. 1896 A, p. 15.
 Trouessart, E. L. 1898 A, p. 1248.
 Jurassic; Wyoming.

Stylacodon validus Marsh.

- Marsh, O. C. 1880 F, p. 236.
 Roger, O. 1896 A, p. 15.
 Trouessart, E. L. 1898 A, p. 1249.
 Jurassic; Wyoming.

DRYOLESTES Marsh. Type *D. priscus* Marsh.

- Marsh, O. C. 1878 D.
 1879 F, p. 215.
 1886 C.
 1887 A, pp. 333, 334.
 Nicholson and Lydekker 1889 A, pp. 1276, 1277.
 Osborn, H. F. 1888 C, p. 235.
 1888 G, p. 237. (Syn.? of Phacolestes.)
 Schlosser, M. 1890 C, p. 242.
 Steinmann and Döderlein 1890 A, p. 698.
 Winge, H. 1893 C, p. 76.
 Woodward, M. F. 1896 A, p. 587.
 Zittel, K. A. 1893 B, p. 102.

Dryolestes arcuatus Marsh.

- Marsh, O. C. 1879 G, p. 397.
 1887 A, p. 343.
 Roger, O. 1896 A, p. 15.
 Trouessart, E. L. 1898 A, p. 1248.
 Jurassic; Wyoming.

Dryolestes gracilis Marsh.

- Marsh, O. C. 1881 F, p. 513.
 1887 A, p. 343.
 1897 C, p. 526.
 Roger, O. 1896 A, p. 15.
 Trouessart, E. L. 1898 A, p. 1248.
 Jurassic; Wyoming, Colorado.

Dryolestes obtusus Marsh.

- Marsh, O. C. 1880 F, p. 237.
 1887 A, p. 343.
 Roger, O. 1896 A, p. 15.
 Trouessart, E. L. 1898 A, p. 1248.
 Jurassic; Wyoming.

Dryolestes priscus Marsh.

- Marsh, O. C. 1878 D.
 1879 F, p. 215.
 1887 A, p. 334, pl. ix, fig. 2.
 Osborn, H. F. 1888 G, p. 238, fig. 28.
 Roger, O. 1896 A, p. 15.
 Trouessart, E. L. 1898 A, p. 1248.
 Woodward, A. S. 1896 B, p. 259, fig. 152.
 Zittel, K. A. 1893 B, p. 102, fig. 81.
 Jurassic; Wyoming.

Dryolestes tenax Marsh.

- Marsh, O. C. 1889 D, p. 87.
 Osborn, H. F. 1891 A, p. 131.
 1891 B, p. 45.
 1891 E, p. 606.
 Roger, O. 1896 A, p. 15.
 Trouessart, E. L. 1898 A, p. 1248.
 Cretaceous (Laramie); Wyoming.

Dryolestes vorax Marsh.

- Marsh, O. C. 1879 F, p. 215,
1887 A, p. 834, pl. ix, figs. 3, 4.
Osborn, H. F. 1888 G, p. 237, fig. 27.

- Roger, O. 1896 A, p. 15.
Trouessart, E. L. 1898 A, p. 1248.
Woodward, A. S. 1898 B, p. 259, fig. 152.
Jurassic; Wyoming.

ASTHENODON Marsh. Type *A. segnis* Marsh.

- Marsh, O. C. 1887 A, p. 336, pl. ix, figs. 6, 7.
Nicholson and Lydekker 1889 A, p. 1276.
Osborn, H. F. 1888 A, p. 300.
1888 F, p. 1071.
1888 G, p. 238.
Winge, H. 1893 C, p. 76.
Zittel, K. A. 1893 B, p. 102.

- Asthenodon segnis** Marsh.
Marsh, O. C. 1887 A, p. 336, pl. ix, figs. 6, 7.
Osborn, H. F. 1888 G, p. 238, figs. 29, A, B.
Roger, O. 1896 A, p. 15.
Trouessart, E. L. 1898 A, p. 1248.
Woodward, A. S. 1898 B, p. 259, fig. 152.
Jurassic; Wyoming.

LAODON Marsh. Type *L. venustus* Marsh.

- Marsh, O. C. 1887 A, p. 337.
Ameghino, F. 1899 A, p. 571.
Nicholson and Lydekker 1889 A, p. 1276.
Osborn, H. F. 1888 G, p. 238.
Winge, H. 1893 C, p. 76.

Laodon venustus Marsh.

- Marsh, O. C. 1887 A, p. 337, pl. ix, fig. 5.

- Osborn, H. F. 1888 G, p. 238, fig. 30.
Roger, O. 1896 A, p. 15.
Trouessart, E. L. 1898 A, p. 1248.
Walcott, C. D. 1900 A, p. 23.
Woodward, A. S. 1898 B, p. 259, fig. 152.
Jurassic; Wyoming.

DIDELPHIDÆ.

- Ameghino, F. 1899 A, p. 277.
Baird, S. F. 1857 A, p. 231. (Didelphydæ, Peratheriæ.)
Baur, G. 1885 K, p. 475.
Cope, E. D. 1889 R, p. 876.
Flower, W. H. 1883 D, p. 380.
Flower and Lydekker 1891 A, p. 133.
Gegenbaur, C. 1898 A.
Haeckel, E. 1896 A, p. 481. (Didelphyida.)
Lydekker, R. 1887 A, p. 278.
1896 B, p. 55.
Nicholson and Lydekker 1889 A, p. 1280.

- Osborn, H. F. 1898 G, p. 497.
1900 C, p. 566.
Owen, R. 1838 A.
1839 A.
Parker, W. K. 1885 A, p. 59.
Roger, O. 1896 A, p. 18.
Schlosser, M. 1889 A.
Schmidt, O. 1886 A, p. 97.
Tomes, C. S. 1898 A, p. 562.
Winge, H. 1893 C, p. 89.
Wyman, J. 1872 A.
Zittel, K. A. 1893 B, p. 105.

DIDELPHIS¹ Linnæus. Type *D. marsupialis* Linn.

- Linnæus, C. 1758, Syst. Nat., ed. 10, i, p. 54.
Ameghino, F. 1899 A, p. 277.
Aymard, A., 1848, Mem. Soc. Acad. du Puy.
(Peratherium.)
Baird, S. F. 1857 A, p. 232.
Bensley, B. A. 1900 A, p. 559.
Burmester, H. 1879 B, p. 183.
Cope, E. D. 1873 T, p. 1. (Herpetotherium, type
H. fugax.)
1873 CC, p. 4. (Embassia, type *E. alternans*,
Peratherium.)
1874 B, pp. 465, 468 (Embassia, Herpe-
totherium); p. 472 (Didelphys).
1874 P, p. 23. (Herpetotherium.)
1879 A, p. 45. (Didelphys.)
1884 O, p. 37 (Didelphys); pp. 260, 268, 788,
789 (Peratherium).
1884 Y, p. 687. (Peratherium.)
Coues, E. 1872 A.
Emery, C. 1897 C.
Flower, W. H. 1885 A.

- Flower and Lydekker 1891 A, p. 134.
Gaudry, A. 1878 B, p. 11.
Kükenthal, W. 1891 B, p. 658, figs. 1-8.
Lydekker, R. 1887 A, p. 278.
Marsh, O. C. 1877 E.
Nicholson and Lydekker 1887 A, p. 1458.
Osborn, H. F. 1892 I.
Owen, R. 1838 A.
1843 A, pp. 57, 72.
1866 A, p. 320, *et seq.*
1868 A, p. 288.
Pictet, F. J. 1853 A, p. 394.
Röse, C. 1892 E, p. 641.
Schlosser, M. 1887 B, p. 145. (Peratherium.)
1890 C, p. 244.
1890 D.
Thomas, O. 1892 B.
Trouessart, E. L. 1898 A, p. 1230.
Well, R. 1899 A, p. 108, pls. II, III.
Zittel, K. A. 1893 B, p. 106.

¹ This is the original orthography. The form *Didelphys* is usually employed by writers.

Didelphis alternans (Cope).

- Cope, E. D.* 1873 CC, p. 7. (Embassia.)
 1874 B, p. 468. (Embassia.)
 1884 O, pp. 794, 798, pl. lxii, figs. 22-24.
 (Peratherium.)
Matthew, W. D. 1899 A, p. 52.
Roger, O. 1896 A, p. 20.
Trouessart, E. L. 1898 A, p. 1232.
 Oligocene (White River); Colorado.

Didelphis comstocki (Cope).

- Cope, E. D.* 1884 O, p. 269 (Peratherium comstocki);
 pl. xxv a, fig. 15. *P. comstockianum*.
Matthew, W. D. 1899 A, p. 31.
Roger, O. 1896 A, p. 19.
Trouessart, E. L. 1898 A, p. 1230.
 Eocene (Wasatch); Wyoming.

Didelphis fugax (Cope).

- Cope, E. D.* 1873 T, p. 1. (Herpetotherium *fusax*,
err. typ.)
 1873 CC, pp. 5, 6. (Herpetotherium.)
 1874 B, p. 467. (Herpetotherium.)
 1874 P, p. 23. (Herpetotherium.)
 1884 O, p. 794, pl. lxii, figs. 1-9. (Perathe-
 rium.)
 1884 Y, p. 687, fig. 1. (Peratherium.)
Matthew, W. D. 1899 A, p. 52.
Roger, O. 1896 A, p. 21.
Trouessart, E. L. 1898 A, p. 1232.
 Oligocene (White River); Colorado.

Didelphis huntii (Cope).

- Cope, E. D.* 1873 CC, p. 5. (Herpetotherium.)
 1873 CC, pp. 5, 6 (Herpetotherium *stevensoni*);
 p. 8 (Miothen gracile).
 1874 B, p. 466 (Herpetotherium *huntii*);
 p. 467 (H. *stevensoni*); p. 470 (Domnina
gracilis).
 1884 O, pp. 794, 796, pl. lxii, figs. 12-16.
 (Peratherium.)
 1887 Y, p. 687. (Peratherium.)
Matthew, W. D. 1899 A, p. 52.
Roger, O. 1896 A, p. 21.
Trouessart, E. L. 1898 A, p. 1232.
 Oligocene (White River); Colorado.

Didelphis marginalis (Cope).

- Cope, E. D.* 1873 CC, pp. 5, 6. (Herpetotherium.)

- Cope, E. D.* 1874 B, p. 468. (Embassia.)
 1884 O, pp. 794, 798, pl. lxii, figs. 19-21.
 (Peratherium.)
Matthew, W. D. 1899 A, p. 52.
Roger, O. 1896 A, p. 21.
Trouessart, E. L. 1898 A, p. 1232.
 Oligocene (White River); Colorado.

Didelphis pygmaea Scott.

- Scott, W. B.* 1884 A, p. 442, figure.
Matthew, W. D. 1899 A, p. 52.
Roger, O. 1896 A, p. 21.
Trouessart, E. L. 1898 A, p. 1232.
 Oligocene (White River); Colorado.

Didelphis scalaris (Cope).

- Cope, E. D.* 1873 CC, pp. 5, 7. (Herpetotherium.)
 1874 B, p. 467. (Herpetotherium.)
 1884 O, pp. 794, 797, pl. lxii, figs. 17, 18.
 (Peratherium.)
Matthew, W. D. 1899 A, p. 52.
Roger, O. 1896 A, p. 21.
Trouessart, E. L. 1898 A, p. 1232.
 Oligocene (White River); Colorado.

Didelphis tricuspid (Cope).

- Cope, E. D.* 1873 CC, p. 5. (Herpetotherium.)
 1874 B, p. 466. (Herpetotherium.)
 1884 O, pp. 794, 796, pl. lxii, figs. 10, 11.
 (Peratherium.)
Roger, O. 1896 A, p. 21.
Trouessart, E. L. 1898 A, p. 1232.
 Oligocene; Colorado.

Didelphis virginiana Kerr.

- Kerr, Robert*, 1792, Animal Kingdom, i, No. 886.
 (Fide J. A. Allen.)
Baird, S. F. 1857 A, p. 232.
Coues, E. 1872 A.
Emmons, E. 1868 A, p. 78. ("Insectivorous mam-
 mal.")
Leidy, J. 1860 B, p. 116, pl. xxiii, fig. 2.
 1869 A, p. 410.
Trouessart, E. L. 1898 A, p. 1233. (Subsp. of *D.*
marsupialis.)
Wyman, J. 1872 A.
 Recent; eastern North America: Pleistocene;
 South Carolina.

Superorder MONDELPHIA.

- Cope, E. D.* 1889 R, p. 874.
 1898 B, p. 104.
Flower, W. H. 1883 A.
 1883 D, p. 383. (Eutheria, or Monodelphia.)
 1885 A, p. 6. (Eutheria, Monodelphia.)
Gadow H. 1898 A, p. 41. (Eutheria.)
Gill, T. 1872 A, p. 295.
 1872 B, p. 46.

- Haeckel, E.* 1895 A, p. 487. (Placentalia.)
Huxley, T. H. 1872 A, p. 281.
 1890 B. (Monodelphia, Eutheria.)
Nicholson and Lydekker 1889 A, p. 1289. (Eu-
 theria.)
Osborn, H. F. 1893 A, p. 391. (Eutheria.)
 1898 L, p. 456. (Eutheria.)
Woodward, A. S. 1898 B, p. 266. (Eutheria.)

Order BRUTA Linn.

- Linnaeus, C.*, 1758, Syst. Nat., ed. 10, i, p. 83.
 Unless otherwise indicated, the following au-
 thorities employ the name *Edentata* for this
 order.

- Ameghino, F.* 1889 A, p. 658.
Baur, G. 1885 K, p. 477.
Blainville, H. M. D. 1839 A. ("Edentés.")
 1839 B. ("Edentés.")

- Blainville, H. M. D. 1839 C, p. 118.
 1864 A, iv, DD, pla. 1-vi.
 Broom, R. 1897 A.
 Burmeister, H. 1866 B, p. 148.
 1871 A.
 1871 B.
 1879 B, p. 275.
 Cope, E. D. 1880 B, p. 454.
 1884 X.
 1887 B, p. 342.
 1888 I, p. 4.
 1888 K, p. 163.
 1889 C.
 1889 P.
 1889 R, p. 375.
 1897 A, p. 323.
 1898 B, p. 106.
 Cuvier, G. 1834 A, viii, pt. i, pp. 129-270.
 Filhol, H. 1894 A.
 Flower, W. H. 1869 A, p. 265.
 1882 A.
 1883 A.
 1883 D, p. 383.
 1885 A.
 Flower and Lydekker 1891 A, p. 176.
 Gadow, H. 1898 A, p. 41.
 Gaudry, A. 1878 B, p. 192.
 Gegenbaur, C. 1898 A.
 Gervais, P. 1873 A.
 Gill, T. 1872 A, p. 304. (Bruta.)
 1872 B, pp. 23, 50. (Bruta.)
 Gill and Coues 1877 A, p. 1069.
 Gray, J. E. 1869 A, p. 361. (Bruta.)
 Haeckel, E. 1896 A, pp. 490, 511.
 Hay, O. P. 1899 F, p. 682. (Bruta.)
 Huxley, T. H. 1872 A, p. 282. (Edentata, or Bruta.)
 Leche, W. 1893 A, p. 527.
 1895 A, p. 108.
 1897 A.
 Leidy, J. 1871 C, p. 365.
 Marsh, O. C. 1877 E.
 1897 B, p. 144.
 Lydekker, R. 1896 B.
 Nicholson and Lydekker 1899 A, 1289.
 Osborn, H. F. 1888 F, p. 1067.
 1893 D.
 1893 G, p. 493.
 1897 F, p. 611.
 Owen, R. 1840 F, p. 85. (Bruta, or Edentata.)
 1842 D.
 1845 B, p. 317.
 1851 C, p. 740.
 1860 D.
 1866 B, p. 393.
 1868 A, p. 272. (Bruta.)
 Parker, W. K. 1868 A, p. 199.
 1885 A, p. 90.
 1886 A.
 Parsons, F. G. 1899 A.
 1900 A.
 Rapp, W. 1852 A.
 Reh, L. 1896 A.
 Roemer, F. 1862 A.
 1893 A.
 Röse, C. 1892 D, p. 495.
 Roger, O. 1896 A, p. 90.
 Schlosser, M. 1890 A.
 1890 C.
 1890 D.
 1892 A.
 1893 A.
 Schmidt, O. 1886 A, p. 110.
 Slade, D. D. 1888 A, p. 242.
 1890 A.
 Steinmann and Döderlein 1890 A, p. 736.
 Thomas, O. 1888 A.
 Tones, C. S. 1898 A, p. 370.
 Trouessart, E. L. 1898 A, p. 1094.
 Turner, H. N. 1848 A.
 Weber, Max 1893 A.
 1893 B.
 Weyhe, — 1875 A, p. 105.
 Woodward, A. S. 1898 B, p. 277.
 Wortman, J. L. 1886 A, p. 408. (Bruta.)
 1896 B, p. 259.
 1897 B.
 Zittel, K. A. 1893 B, p. 117.

Suborder TÆNIODONTA Cope.

- Cope, E. D. 1876 C.
 Ameghino, F. 1897 A, pp. 83, 89.
 Cope, E. D. 1877 K, pp. 85, 157.
 1882 E, p. 146.
 1882 L, p. 72.
 1883 I, p. 79.
 1884 O, pp. 186, 187, 739.
 1887 B, p. 343.
 1888 K.
 1897 A, p. 322.
 1898 B, p. 115.
 Marsh, O. C. 1875 C, p. 221. (Tillodontia, in part.)
 Marsh, O. C. 1897 B. (>Stylinodontia.)
 Osborn, H. F. 1897 F, p. 611. (Ganodontia.)
 1898 A, p. 146. (Ganodontia.)
 Rüttimeyer, L. 1891 A.
 Trouessart, E. L. 1898 A, p. 667. (Ganodontia.)
 Woodward, A. S. 1898 B, p. 277.
 Wortman, J. L. 1885 A, p. 298.
 1896 B, p. 259. (Ganodontia.)
 1897 A. (Ganodontia.)
 1897 B. (Ganodontia.)
 Zittel, K. A. 1893 B, p. 508. (Tillodontia, in part.)

CONORYCTIDÆ.

- Wortman, J. L. 1896 B, p. 260.
 Matthew, W. D. 1897 C, p. 262.
 Trouessart, E. L. 1898 A, p. 667.
 Wortman, J. L. 1897 B, pp. 96, 109.

CONORYCTES Cope. Type *C. comma* Cope.

- Cope, E. D. 1881 H, p. 486.
 1881 U, p. 829.
 1883 E.
 1883 Q, p. 168.
 1883 EE.
 1884 AA, p. 796. (*Hexodon*, type *H. molestus*.)
 1884 O, p. 198.
 1888 CC, p. 316.
 Nicholson and Lydekker 1889 A, p. 1453.
 Osborn and Earle 1896 A, p. 40.
 Pavlow, M. 1887 A.
 Schlosser, M. 1885 A, p. 684.
 1886 B, p. 37.
 Scott, W. B. 1892 B, p. 323.
 1892 D, p. 80.
 Trouessart, E. L. 1898 A, p. 667.
 Wortman, J. L. 1896 B, p. 259.

- Wortman, J. L. 1897 B, p. 101, 109.
 Zittel, K. A. 1893 B, p. 510.

Conoryctes comma Cope.

- Cope, E. D. 1881 H, p. 486.
 1881 U, p. 829.
 1884 AA, p. 796, fig. 3. (*Hexodon molestus*.)
 1884 O, pp. xxxv, 198, pl. xxiii c, figs. 1-5;
 pl. xxv c, figs. 3, 4.
 1888 CC, pp. 303, 317.
 Matthew, W. D. 1897 C, p. 264.
 1899 A, p. 29.
 Roger, O. 1896 A, p. 89.
 Schlosser, M. 1886 B, p. 37.
 Trouessart, E. L. 1898 A, p. 667.
 Wortman, J. L. 1897 B, p. 101, fig. 36.
 Eocene (Puerco); New Mexico.

ONYCHODECTES Cope. Type *O. tisonensis* Cope.

- Cope, E. D. 1888 CC, p. 317.
 Ameghino, F. 1897 A, p. 84.
 Matthew, W. D. 1897 C, p. 266.
 Osborn and Earle 1896 A, p. 40.
 Scott, W. B. 1892 B, p. 323.
 1892 D, p. 80.
 Wortman, J. L. 1896 B, p. 258.
 1897 B, pp. 97, 109.
 Zittel, K. A. 1893 B, p. 510.

Onychodectes rarus Osb. and Earle.

- Osborn and Earle 1896 A, p. 42, fig. 13.
 Matthew, W. D. 1897 C, p. 264.
 1899 A, p. 23.

- Roger, O. 1896 A, p. 89.
 Trouessart, E. L. 1898 A, p. 667.
 Wortman, J. L. 1897 B, p. 100.
 Eocene (Puerco); New Mexico.

Onychodectes tisonensis Cope.

- Cope, E. D. 1888 CC, p. 318, pl. v, figs. 8, 9.
 Matthew, W. D. 1897 C, p. 264.
 1890 A, p. 23.
 Osborn and Earle 1896 A, p. 40, fig. 12.
 Roger, O. 1896 A, p. 89.
 Trouessart, E. L. 1898 A, p. 667.
 Wortman, J. L. 1897 B, p. 97, figs. 31-34.
 Eocene (Puerco); New Mexico.

STYLINODONTIDÆ.

- Marsh, O. C. 1876 C, p. 221.
 Ameghino, F. 1897 A, p. 89.
 Cope, E. D. 1876 C, p. 39. (*Ectoganidæ*, *Calamodontidæ*.)
 1877 K, p. 157. (*Ectoganidæ*.)
 1884 O, p. 188. (*Ectoganidæ*, *Calamodontidæ*.)
 1888 CC, p. 310. (*Hemiganidæ*.)
 Flower, W. H. 1876 C, p. 124. (*Stylinodontidæ*, *Ectoganidæ*.)

- Marsh, O. C. 1876 G, p. 60.
 1877 E.
 1897 B, p. 137.
 Matthew, W. D. 1897 C, p. 262.
 Nicholson and Lydekker 1889 A, p. 1410. (*Calamodontidæ*.)
 Roger, O. 1896 A, p. 88. (*Calamodontidæ*.)
 Wortman, J. L. 1896 B, p. 260.
 1897 B, pp. 96, 109.
 Zittel, K. A. 1893 B, p. 508.

WORTMANIA Hay. Type *Hemiganus otariidens* Cope.

- Hay, O. P. 1899 A, p. 568.
 Cope, E. D. 1885 L. (*Hemiganus*, in part.)
 1888 CC, p. 311. (*Hemiganus*, in part.)
 Nicholson and Lydekker 1889 A, p. 1453. (*Hemiganus*, in part.)
 Trouessart, E. L. 1898 A, p. 668. (*Hemiganus*.)
 Wortman, J. L. 1897 B. (*Hemiganus*.)
 Zittel, K. A. 1893 B, p. 510. (*Hemiganus*, in part.)
Wortmania otariidens (Cope.)
 Cope, E. D. 1885 L, p. 493. (*Hemiganus*.)

- Cope, E. D. 1888 CC, p. 311, pl. iv; pl. v, figs. 1-7. (*Hemiganus*.)
 Hay, O. P. 1899 A, p. 568. (*Wortmania*.)
 Matthew, W. D. 1897 C, p. 264. (*Hemiganus*.)
 1899 A, p. 23. (*Hemiganus*.)
 Roger, O. 1896 A, p. 89. (*Hemiganus*.)
 Trouessart, E. L. 1898 A, p. 668. (*Hemiganus*.)
 Wortman, J. L. 1897 B, pp. 64, 67, figs. 2, 3. (*Hemiganus*.)
 Zittel, K. A. 1893 B, p. 510. (*Hemiganus*.)
 Eocene (Puerco); New Mexico.

PSITTACOTHERIUM Cope. Type *P. multifragum* Cope.

- Cope, E. D. 1882 P, p. 157.
 Ameghino, F. 1897 A, p. 89.
 Cope, E. D. 1882 E, p. 191.
 1882 CC. (Hemiganus, type *H. vultuosus*).
 1883 E.
 1888 I, p. 77.
 1884 O, pp. 195, 738 (*Psittacotherium*); explan. pl. xxiii c (*Hemiganus*).
 1885 L. (*Hemiganus*).
 1887 F, p. 469.
 1888 I, p. 4.
 1888 CC, p. 311. (*Hemiganus*).
 1889 C.
 1897 A, p. 322.
 Nicholson and Lydekker 1889 A, p. 1409 (*Psittacotherium*); p. 1453 (*Hemiganus*).
 Osborn, H. F. 1897 F, p. 611.
 1898 A, p. 145.
 Schlosser, M. 1890 C, p. 252.
 1892 A, p. 225.
 Scott, W. B. 1892 B, p. 323. (*Hemiganus*).
 1892 D, p. 80. (*Hemiganus*).
 Steinmann and Döderlein 1890 A, p. 729. (*Hemiganus*).
 Wortman, J. L. 1896 B. (*Psittacotherium*, *Hemiganus*).
 1897 B, pp. 65, 67 (type of *Hemiganus*=*P. multifragum*); p. 109 (*Hemiganus*, *Psittacotherium*).
 Zittel, K. A. 1893 B, p. 508. (*Psittacotherium*, *Hemiganus*.)

Psittacotherium multifragum Cope.

- Cope, E. D. 1882 P, p. 157.
 1882 E, p. 191 (*P. multifragum*); p. 192 (*P. aspasie*).
 1882 CC. (*Hemiganus vultuosus*).
 1884 O, p. 196, pl. xxiii c, figs. 7-12 (*Hemiganus vultuosus*); pl. xxiv b, fig. 2; pl. xxiv b, figs. 3, 4 (*P. aspasie*).
 1885 L. (*Hemiganus vultuosus*).
 1887 F, p. 469. (*P. multifragum*, *P. megalodus*).
 1888 I, p. 4, fig. 1.
 1888 CC, p. 302 (*P. multifragum*, *P. aspasie*, *P. megalodus*); p. 303 (*Hemiganus vultuosus*).
 1889 C, p. 262.
 Hay, O. P. 1899 A, p. 508.
 Matthew, W. D. 1897 C, pp. 264, 320.
 1899 A, p. 29.
 Osborn and Earle 1896 A, p. 42.
 Roger, O. 1896 A, p. 88 (*P. multifragum*, *P. aspasie*, *P. megalodus*); p. 89 (*Hemiganus vultuosus*).
 Wortman, J. L. 1896 B, p. 259.
 1897 B, p. 65 et seq., figs. 1, 4, 6-9, 11-13, 15-20; p. 67 (*Hemiganus vultuosus*, a synonym); p. 71 (*P. megalodus* and *P. aspasie*, synonyms).
 Zittel, K. A. 1893 B, p. 508, fig. 423 (*P. multifragum*); p. 510 (*Hemiganus vultuosus*).
 Eocene (Puerco); New Mexico.

CALAMODON Cope. Type *C. simplex* Cope.

- Cope, E. D. 1874 O, p. 5.
 1875 A.
 1875 C, p. 23.
 1876 C.
 1877 K, p. 162.
 1882 E, p. 146.
 1882 L.
 1884 O, p. 188.
 1888 I, p. 5.
 1889 C, p. 262.
 1894 I, p. 594. (*Calamodon*, or *Conicodon*).
 1897 A, p. 322.
 Flower and Lydekker 1891 A, p. 442.
 Major, Fors. 1893 A, p. 209.
 Marsh, O. C. 1875 A, p. 151.
 Nicholson and Lydekker 1889 A, p. 1410.
 Osborn, H. F. 1897 F.
 Rütlimyer, L. 1891 A, p. 126.
 Schlosser, M. 1890 C, p. 252.
 Steinmann and Döderlein 1890 A, p. 730.
 Wortman, J. L. 1897 B, pp. 88, 110.
 Zittel, K. A. 1893 B, p. 509.

Calamodon arcamcenus Cope.

- Cope, E. D. 1874 O, p. 6.

- Cope, E. D. 1875 C, p. 24.
 1877 K, p. 163, pl. xli, figs. 13-17; pl. xlii, figs. 1-5; pl. xlii, fig. 1.
 Matthew, W. D. 1899 A, p. 32.
 Roger, O. 1896 A, p. 89.
 Zittel, K. A. 1893 B, p. 509. (*Stylinodon*).
 Eocene (Wasatch); New Mexico.

Calamodon simplex Cope.

- Cope, E. D. 1874 O, p. 5.
 1875 C, p. 24.
 1877 K, p. 166, pl. xlii, figs. 6-8; pl. xliii; pl. xlii, figs. 2-5.
 1882 E, p. 147.
 1884 O, p. 189, pl. xxiv b, fig. 1;? pl. xxiv c, figs. 20-22.
 1888 I, p. 5, fig. 2.
 1889 C, p. 262, fig. 85.
 King, C. 1878 A, p. 377.
 Matthew, W. D. 1899 A, p. 32.
 Osborn and Wortman 1892 A, p. 83.
 Roger, O. 1896 A, p. 89.
 Wortman, J. L. 1897 B, p. 89, figs. 22-24.
 Zittel, K. A. 1893 B, p. 509. (*Stylinodon*).
 Eocene (Wasatch); Wyoming, New Mexico.

STYLINODON Marsh. Type *S. mirus* Marsh.

- Marsh, O. C. 1874 C, p. 532.
 Ameghino, F. 1897 A, p. 89.
 Cope, E. D. 1875 A.
 Flower and Lydekker 1891 A, p. 442.

- Marsh, O. C. 1875 A.
 1877 E.
 1897 B.
 Nicholson and Lydekker 1889 A, p. 1410.

- Osborn, H. F. 1897 F, p. 612.
 Wortman, J. L. 1887 F, p. 290.
 1896 B, p. 259.
 1897 A, p. 110.
 Zittel, K. A. 1898 B, p. 509.

Stylinodon cylindrifera (Cope).

- Cope, E. D. 1881 D, p. 184. (Calamodon.)
 1884 O, p. 192, pl. xxiv a, figs. 15, 16. (Calamodon.)
 Matthew, W. D. 1899 A, p. 36.
 Roger, O. 1896 A, p. 89. (Calamodon.)
 Trouessart, E. L. 1898 A, p. 669.

- Wortman, J. L. 1897 B, p. 92, fig. 25.
 Zittel K. A. 1898 B, p. 509.
 Eocene (Wind River, Bridger); Wyoming.

Stylinodon mirus Marsh.

- Marsh, O. C. 1874 C, p. 532.
 King, C. 1878 A, p. 404.
 Marsh, O. C. 1897 B, p. 138, figs. 1-7.
 Matthew, W. D. 1899 A, p. 43.
 Roger, O. 1896 A, p. 89. (Calamodon.)
 Trouessart, E. L. 1898 A, p. 669.
 Wortman, J. L. 1897 B, p. 93, figs. 26-30.
 Eocene (Bridger); Wyoming.

Ectoganus Cope. Type *E. gliriformis* Cope.

- Cope, E. D. 1874 O, p. 4.
 1875 C, p. 23.
 1876 A, p. 3.
 1877 K, p. 158.
 1897 A, p. 322.
 Wortman J. L. 1896 B, p. 259.
 1897 B, p. 88.
 Zittel, K. A. 1898 B, p. 510.

Ectoganus gliriformis Cope.

- Cope, E. D. 1874 O, p. 4.
 1877 K, p. 160, pl. xli, figs. 1-12.

- King, C. 1878 A, p. 377.
 Roger, O. 1896 A, p. 89.
 Eocene; New Mexico.

Ectoganus novomehicanus Cope.

- Cope, E. D. 1874 O, p. 6. (Calamodon.)
 1875 C, p. 24. (Calamodon.)
 1877 K, p. 159, pl. xi, figs. 34-39.
 Matthew, W. D. 1899 A, p. 32. (Calamodon.)
 Roger, O. 1896 A, p. 89.
 Eocene (Wasatch); New Mexico.

Dryptodon Marsh. Type *D. crassus* Marsh.

- Marsh, O. C. 1876 H, p. 403.
 1877 E.
 1897 B, 138.
 Trouessart, E. L. 1898 A, p. 669.
 Wortman, J. L. 1897 B, p. 88, footnote 4.
 Zittel K. A. 1898 B, p. 510.

Dryptodon crassus Marsh.

- Marsh, O. C. 1876 H, p. 403.
 King, C. 1878 A, p. 377.
 Matthew, W. D. 1899 A, p. 32.
 Roger, O. 1896 A, p. 89.
 Trouessart, E. L. 1898 A, p. 669.
 Eocene (Wasatch); New Mexico.

Suborder XENARTHRA.

- Ameghino, F. 1899 A, p. 661. (Gravigrada.)
 Burmeister, H. 1879 B, p. 279 (Phyllophaga); p. 387 (Effodientia).
 Cope, E. D. 1889 C. (Xenarthri.)
 1899 P, p. 657.
 Flower, W. H. 1883 A. (Pilosa.)
 Flower and Lydekker 1891 A, p. 179. (Pilosa.)
 Gadow, H. 1898 A, p. 41.
 Gill, T. 1872 B, pp. 23, 24. (Vermilingua, Tardigrada, Loricata.)

- Haeckel E. 1896 A, p. 490. (Bradytheria.)
 Roger, O. 1896 A, p. 91.
 Trouessart, E. L. 1898 A, p. 1094.
 Wortman, J. L. 1897 B, p. 109.
 Zittel, K. A. 1898 B, p. 124.
 Dr. Gill, in Standard Natural History, vol. v, 1884, p. 66, recognized the peculiar character of the vertebrae of this group and employed the adjective term *xenarthral*; but he did not formally name the group.

MEGATHERIIDÆ.

- Ameghino, F. 1899 A, p. 666 (Megatheriidae); p. 690. (Megalonychidae); p. 740 (Mylodontidae).
 1894 A, p. 397. (Gravigrada.)
 Burmeister, H. 1896 B, p. 149. (<Gravigrada.)
 Claypole, E. W. 1891 A.
 Cope, E. D. 1889 C.
 1889 P, p. 658.
 1899 R, p. 876.
 Flower, W. H. 1882 A.
 1883 D, p. 384.
 Flower and Lydekker 1891 A, p. 158.
 Gill, T. 1872 B, p. 24.
 Lönnberg, E. 1899 A. (Mylodontidae.)
- Lydekker, R. 1887 A, p. 85.
 1894 A, p. 70.
 1896 B, p. 102. (Megalotheriidae.)
 Nicholson and Lydekker 1889 A, p. 1296.
 Roger, O. 1896 A, p. 91 (Megatheriidae); p. 98 (Megalonychidae); p. 97 (Mylodontidae).
 Schlosser, M. 1890 C, p. 251.
 Steinmann and Döderlein 1890 A, p. 739.
 Trouessart, E. L. 1898 A, p. 1098 (Megalonychidae); p. 1107 (Megatheriidae).
 Zittel, K. A. 1898 B, p. 130 (Megatheriidae); p. 133 (Megalonychidae); p. 136 (Mylodontidae).

MEGATHERIUM Cuvier. Type *M. americanum* Cuvier.

- Cuvier, G., 1796, Mag. Encycl., i. (*Fide* Agassiz.)
 Adam, W. 1834 A.
 Agassiz, L. 1862 C.
 1863 A.
 1863 B.
 Ameghino, F. 1886 A, p. 178.
 1889 A, p. 666.
 Blainville, H. M. D. 1839 A, p. 67.
 1839 C, p. 114.
 1864 A, iv, EE, p. 89, pls. i-iv.
 Bru, D. J. B. 1804 A.
 Buckland, W. 1837 A, i, p. 112.
 Burmeister, H. 1866 B, p. 150.
 1870 A, p. 381.
 1873 A.
 1879 B, p. 285.
 1888 B.
 Clift, W. 1835 A.
 Cope, E. D. 1889 C, p. 188.
 1889 F, p. 660.
 Couper, J. H. 1842 A.
 Cuvier, G., 1796, Table Élément., p. 146.
 1804 B, pp. 376-387, pls. xxiv, xxv.
 1834 A, viii, pt. i, pp. 531-570, pl. ccxvii.
 Dawkins, W. B. 1870 A, p. 233.
 De Kay, J. E. 1842 C, p. 98.
 Desor, E. 1852 A, p. 58.
 Flower, W. H. 1882 A.
 1883 D, p. 385.
 Flower and Lydekker 1891 A, p. 185.
 Gervais, P. 1839 A.
 1873 A, p. 464.
 Giebel, C. G. 1847 A, p. 111.
 Harlan, R. 1825 A, p. 199.
 Holmes, F. S. 1858 B.
 Koken, E. 1888 C, p. 5.
 Leidy, J. 1855 B, pp. 49, 50.
 Lund, P. W. 1841 A, p. 73.
 1842 A.
 Lydekker R. 1887 A, p. 86.
 1894 A, p. 71.
 1896 B, p. 102. (*Megalotherium*.)
 Nicholson and Lydekker 1889 A, p. 1295.
 Owen, R. 1840 B.
 1840 F, pp. 64, 85.
 1842 D.
 1843 B.
 1845 B, p. 333, pls. lxxxiii, lxxxiv.
 1847 C, p. 66.
 1851 C.
 1852 A.
 1855 B.
 1856 B.
 1858 C.
 1860 D.
 1866 B, p. 402.
 1868 A, p. 274.
 Pander and d'Alton 1818 A.
 Pictet, F. J. 1853 A, p. 264, fig. 216.
 Schmidt, O. 1886 A, p. 115.
 Steinmann and Döderlein 1890 A, p. 739.
 Trouessart, E. L. 1898 A, p. 1108.
 Woodward, A. S. 1898 B, p. 279.
 Zittel, K. A. 1893 B, p. 131.
 Ameghino, F. 1889 A, p. 668, pl. xli, fig. 4; pl. lxxxii, figs. 1-3.
 Blainville, H. M. D. 1864 A.
 Burmeister, H. 1866 B, p. 150, pl. v.
 1873 A, pl. xi.
 1879 B, p. 321.
 1889 A, p. 27, pl. xi, figs. 7, 8.
 Desmarest, A. G., 1822, Mammalogie, p. 365. (*M. cuvieri*.)
 Flower and Lydekker 1891 A, p. 185, figs. 60-62.
 Gervais and Ameghino 1880 A, p. 135.
 Giebel, C. G. 1847 A, p. 111. (*M. cuvieri*.)
 Leidy, J. 1877 A, p. 213, pl. xxxiv, figs. 42, 43. (*With doubt*.)
 Lydekker, R. 1887 A, p. 86.
 1894 A, p. 73, pls. xlv, xlvii.
 Owen, R. 1840 F, p. 100, pls. xxx-xxxii.
 1851 C.
 1855 B, pls. xxii-xxvii.
 1856 B, pls. xxi-xxvi.
 Quenstedt, F. A. 1852 A, p. 44, pl. iii, fig. 13.
 Reinhardt, J. 1875 A, pl. iv, figs. 6, 7.
 Roger, O. 1896 A, p. 91.
 Trouessart, E. L. 1898 A, p. 1109.
 Zittel, K. A. 1893 B, p. 132, figs. 104, 107, 108.
 This species has been recorded with doubt from the phosphate beds of South Carolina. The species had previously been known only from South America.
- Megatherium mirabile Leidy.**
Leidy, J. 1852 H, p. 117.
Cooper, W. 1824 A, p. 114, pl. viii. (*"Megatherium."*)
 1828 A, p. 267. (*"Megatherium."*)
Cope, E. D. 1889 F, p. 660.
Couper, J. H. 1842 A, p. 216.
 1846, in Hodson, W. B. 1846 A.
Cuvier, G. 1834 A, viii, p. 338. (*"Megatherium."*)
De Kay, J. E. 1842 C, p. 98. (*M. cuvieri*.)
Habersham, J., in Hodson, W. B. 1846 A, p. 25. (*M. cuvieri*.)
Harlan, R. 1825 A, p. 200. (*M. cuvieri*.)
 1834 B, p. 63. (*M. cuvieri*.)
 1835 B, p. 299. (*M. cuvieri*.)
 1842 B, p. 143. (*"Megatherium."*)
 1843 B, p. 70. (*Megatherium*.)
Hodson, W. B. 1846 A.
Holmes, F. S. 1849 A, p. 197. (*"Megatherium."*)
Leidy, J. 1854 A, p. 10.
 1855 B, pp. 49, 50, pl. xv.
 1860 B, p. 111, pl. xx, figs. 8, 8a.
 1869 A, p. 411.
Lydekker, R. 1887 A, p. 90.
Lyell, C. 1843 B, p. 128. (*"Megatherium."*)
 1844 A, p. 323. (*"Megatherium."*)
Mitchell, S. L. 1824 A, pl. vi, figs. 12, 13. (*"Megatherium."*)
Roger, O. 1896 A, p. 92.
Trouessart, E. L. 1898 A, p. 1110.
T. R. D. 1839 A. (*"Megatherium."*)
Wyman, J. 1856 A.
Zittel, K. A. 1893 B, p. 132.
 Pleistocene; Georgia, South Carolina.
- Megatherium americanum Cuvier.**
Cuvier, G., 1800, in Shaw's "General Zoology," i, p. 165.

MEGALONYX Jefferson. Type *M. jeffersonii* Desm.*Jefferson, Thos.* 1799 A.

Allen, J. A. 1876 A.

Ameghino, F. 1889 A, p. 690.

Amer. Geologist 1891 G, p. 193.

Blainville, H. M. D. 1839 B.

1839 C, p. 116.

1864 A, iv, EE, p. 42, pls. iii, iv.

Bronn, H. G. 1838 A, p. 1258.

Burmester, H. 1866 B, p. 179.

1879 B, p. 382.

Claypole, E. W. 1891 A.

1897 A.

Cope, E. D. 1871 I, p. 72.

1889 C, p. 186.

1889 P, p. 660, pl. xxxi.

Cuvier, G. 1804 A, pp. 358-376. ("Megalonix.")

1834 A, viii, pt. i, pp. 304-330.

De Kay, J. E. 1842 C, p. 98.

Gervais, P. 1855 A, p. 44.

1873 A, p. 466.

Glebel, C. G. 1847 A, p. 111.

Harlan, R. 1825 A, p. 201.

1835 B, p. 271.

Holmes, F. S. 1858 B.

Leidy, J. 1855 B, pp. 3, 57.

1857 K.

1860 A, p. 107.

Lund, P. W. 1841 A, p. 72.

Lydekker, R. 1887 A, p. 111.

1896 B, p. 105.

Nicholson and Lydekker 1889 A, p. 1299.

Owen, R. 1840 F, p. 64.

1842 D.

1843 B.

1845 B, p. 383.

1852 A.

1866 B, p. 411.

Pictet, F. J. 1853 A, p. 268, pl. viii, figs. 1-3.

Reinhardt, J. 1879 A.

Safford, J. M. 1892 A.

1892 B.

Trouessart, E. L. 1898 A, p. 1106.

Wheatley, C. M. 1871 A.

Wistar, C. 1799 A.

Wortman, J. L. 1897 B.

Wyman, J. 1850 D.

Zittel, K. A. 1898 B, p. 134.

Megalonyx dissimilis Leidy.*Leidy, J.* 1855 B, pp. 45, 57, pl. xvi, figs. 8, 15.

Cope, E. D. 1889 F, p. 660.

1896 F, p. 379. (Syn. of *M. jeffersonii*.)

Cuvier, G. 1804 A, pl. xxiii, fig. 13. ("Megalonix.")

1834 A, pl. ccxvi, fig. 13. ("Megalonyx.")

Leidy, J. 1852 H, p. 117. (No description.)

1854 A, p. 9. (No description.)

1869 A, p. 412.

Roger, O., 1896 A, p. 96.

Trouessart, E. L. 1898 A, p. 1106.

Wallis, B. L. C. 1854 A, p. 286.

Pleistocene; Mississippi.

Prof. Cope (1896 F, p. 379) regards this species, described by Leidy, as synonymous with *M. jeffersonii*.

Megalonyx jeffersonii (Desmarest).*Desmarest, A. G.*, 1822, Mammalogie, p. 366. (Megatherium.)

Bronn, H. G. 1838 A, p. 1255, pl. xlv, fig. 10.

Burmester, H. 1866 B, p. 180.

Claypole, E. W. 1891 A. ("Megalonyx"; this species?)

1897 A. ("Megalonyx"; this species?)

Cooper, W. 1831 A, pp. 171, 206.

1833 A. ("Megalonyx.")

Cooper, Smith, and De Kay 1831 A, p. 371.

Cope, E. D. 1869 E, p. 172.

1889 F, p. 660.

1893 A, p. 50.

1896 F, p. 379.

1899 A, p. 210.

Cope and Wortman 1884 A, p. 39, pl. v, figs. 1, 2.

Cuvier, G. 1804 A, pp. 358-376, pl. xxiii, except fig. 13. ("Megalonix.")

1834 A, viii, pt. i, p. 304; pl. ccxvi, except fig. 13. ("Megalonyx.")

De Kay, J. E. 1842 C, p. 99.

Dickeson, M. W. 1846 A, p. 106.

Harlan, R. 1825 A, p. 201.

1831 A, p. 269, pls. xii-xiv (*M. laqueatus*; *M. jeffersonii*); p. 384 (*Aulaxodon s. Pleurodon*).

1831 B, p. 74.

1834 B, p. 65 (*M. jeffersonii*); p. 67 (*M. laqueatus*.)1835 A, p. 273. (*M. laqueatus*.)1835 B, p. 271. (*M. laqueatus*.)1835 C, p. 319, pls. xii-xiv; pl. xv, figs. 5-7. (*M. laqueatus*.)1843 A, p. 209. (*M. laqueatus*, in part.)*Jefferson, Thos.* 1799 A. ("Megalonyx.")

Kindle, E. M. 1898 A, p. 485.

Leidy, J. 1852 H, p. 117. (*M. jeffersonii*; *M. potens*.)

1854 A, p. 9.

1854 I, p. 200.

1855 B, pp. 3, 57, pls. i-xiii.

1860 A, p. 107, pl. vi, fig. 1.

1869 A, pp. 411, 412.

1870 H, p. 18.

1889 E, p. 27.

Lesley, J. P. 1889 A, p. 383.

Lindahl, J. 1892 A, pl. v, figs. 2, 4, 6.

Lund, 1839 A, p. 573.

Lydekker, R. 1887 A, p. 111.

1896 B, p. 107.

Lyell, C. 1843 B, p. 128. ("Megalonyx.")

1844 A, p. 323. ("Megalonyx.")

Mercer, H. C. 1897 A, figs. 1-26.

Nicholson and Lydekker 1889 A, p. 1229.

Orton, E. 1891 A.

Owen, D. D. 1857 A, p. 273.

Owen, R. 1840 F, pp. 64, 99, pl. xvii, fig. 1.

1842 D.

1843 B, p. 343.

Quenstedt, F. A. 1852 A, p. 44, pl. i, fig. 1.

1885 A, p. 61, pl. i, fig. 15.

Rafinesque, C. S., 1832, Atlantic Jour., p. 18. (*Aulaxodon speleum*.)

- Roger, O. 1896 A, p. 96.
 Steinmann and Döderlein 1890 A, p. 741.
 Troost, G. 1835 A, p. 144.
 Trouessart, E. L. 1898 A, p. 1106.
 Wailes, B. L. C. 1854 A, p. 286.
 Ward, H. A. 1864 A.
 Wistar, C. 1799 A, p. 526, pls. i, ii. ("Megalonyx.")
 Wortman, J. L. 1897 B, p. 73, figs. 5, 10.
 Wyman, J. 1850 A, p. 58, figs. 1-3. (M. laqueatus.)
 1862 A, p. 422.
 Zittel, K. A. 1893 B, p. 134, fig. 110.
 Pleistocene; West Virginia, Northern Illinois, Indiana, Ohio, Kentucky, Tennessee, Alabama, Mississippi, Florida.

Megalonyx leidy Lindahl.

- Lindahl, J. 1892 A, pp. 1-10, pls. i-iv; pl. v, figs. 1, 3, 5, 7-9.
 Cope, E. D. 1889 P, p. 660, pl. xxxi. ("Megalonyx.")
 1898 A, p. 49.
 Roger, O. 1896 A, p. 96.
 Trouessart, E. L. 1898 A, p. 1106.
 Udden, J. A. 1891 A, p. 342.
 Williston, S. W. 1897 I, p. 304.
 1898 I, p. 93.
 Pliocene; Kansas.

Megalonyx leptostomus Cope.

- Cope, E. D. 1898 A, p. 49, pl. xiii, figs. 1-3.
 Matthew, W. D. 1899 A, p. 75.
 Roger, O. 1896 A, p. 96.
 Trouessart, E. L. 1898 A, p. 1106.
 Pliocene (Blanco); Texas.

Megalonyx loxodon Cope.

- Cope, E. D. 1871 I, p. 74, figs. 1, 2.
 1889 P, p. 660.
 1896 F, p. 379.
 1899 A, p. 211.
 Lesley, J. P. 1889 A, p. 383, figures.

- Roger, O. 1896 A, p. 96.
 Trouessart, E. L. 1898 A, p. 1107.
 Pleistocene; Pennsylvania.

Megalonyx scalper Cope.

- Cope, E. D. 1899 A, p. 218, pl. xviii, figs. 2, 2a.
 Pleistocene; Pennsylvania.
 According to Cope this may be the same species as *Ereptodon priscus*.

Megalonyx tortulus Cope.

- Cope, E. D. 1871 I, p. 84, fig. 12.
 1889 P, p. 660.
 1896 F, p. 379.
 1899 A, p. 217.
 Lesley, J. P. 1889 A, p. 384, figures.
 Roger, O. 1896 A, p. 96.
 Trouessart, E. L. 1898 A, p. 1107.
 Pleistocene; Pennsylvania.

Megalonyx validus Leidy.

- Leidy, J. 1868 A, p. 175.
 Cope, E. D. 1871 I, p. 80.
 Leidy, J. 1869 A, p. 412, pl. xxx, fig. 6.
 Roger, O. 1896 A, p. 96.
 Trouessart, E. L. 1898 A, p. 1106.
 Pleistocene; Texas.

Megalonyx wheatleyi Cope.

- Cope, E. D. 1871 I, p. 75, figs. 3-6; fig. 10.
 1871 F. (M. dissimilis, not of Leidy.)
 1871 I, p. 83, fig. 11 (M. sphenodon); figs. 7-8 (M. dissimilis).
 1898 A, p. 50. (M. wheatleyi, M. dissimilis.)
 1896 F, p. 378.
 1899 A, pp. 210, 211, 212.
 Lesley, J. P. 1889 A, p. 384, figures. (M. sphenodon, M. wheatleyi.)
 Roger, O. 1896 A, p. 96.
 Trouessart, E. L. 1898 A, p. 1107.
 Pleistocene; Pennsylvania.

EREPTODON Leidy. Type *E. priscus* Leidy.

- Leidy, J. 1853 E.
 1855 B, pp. 46, 58.
 Trouessart, E. L. 1898 A, p. 1106. (Syn.? of Megalonyx.)
 Zittel, K. A. 1898 B, p. 134. (Syn.? of Megalonyx.)
Ereptodon priscus Leidy.
 Leidy, J. 1853 E.

- Cope, E. D. 1899 A, p. 219.
 Leidy, J. 1855 B, pp. 46, 58, pl. xiv, figs. 9, 10; pl. xvi, fig. 18.
 1869 A, p. 412.
 Roger, O. 1896 A, p. 96. (Megalonyx.)
 Trouessart, E. L. 1898 A, p. 1106. (Megalonyx.)
 Wailes, B. L. C. 1854 A, p. 286.
 Pleistocene; Mississippi.

MYLONDON Owen. Type *M. harlani* Owen.

- Owen, R. 1840 F, p. 63.
 Ameghino, F. 1889 A, p. 741.
 1898 A, p. 324.
 Blainville, H. M. D. 1864 A, iv, EE, p. 39, pls. i-iv.
 Bronn, H. G. 1838 A, p. 1256. ("Orycterotherium?")
 Burmeister, H. 1865 B.
 1866 B, p. 160.
 1879 B, p. 345.
 Cope, E. D. 1882 FF, p. 923.
 1889 C, p. 188.
 1889 F, p. 660.

- Desor, E. 1852 A, p. 58.
 Flower and Lydekker 1891 A, p. 189.
 Gervais, P. 1855 A, p. 45.
 1878 A, p. 467.
 Gervais and Ameghino 1890 A, p. 155.
 Giebel, C. G. 1847 A, p. 117.
 Harlan, R. 1842 B, p. 141. (Aulaxodon sensu Pleurodon, in part.)
 1842 C, p. 111. (Orycterotherium, type O. missouriensis.)
 1843 A.
 1843 B. (Orycterotherium.)

- Leidy, J. 1853 E. (*Eubradys*, type *E. antiquus*.)
 1855 B, pp. 47, 58.
 Lönnberg, E. 1899 A.
 Lydekker, K. 1887 A, p. 104.
 1894 A, p. 77.
 1896 B, p. 105.
 Marsh, O. C. 1883 B.
 Nicholson and Lydekker 1889 A, p. 1298.
 Owen, R. 1840 F, p. 57. (*Glossotherium*.)
 1842 D.
 1843 B.
 1845 C.
 1852 A.
 1855 B.
 1856 B.
 1858 C.
 1860 D.
 1866 B, p. 400.
 Pictet, F. J. 1853 A, p. 269.
 Reinhardt, J. 1866 A.
 1879 A.
 Schmidt, O. 1886 A, p. 115.
 Steinmann and Döderlein 1890 A, p. 740.
 Wortman, J. L. 1897 B.
 Zittel, K. A. 1893 B, p. 137.
- Mylonodon harlani** Owen.
Owen, R. 1840 F, pp. 68, 69, pl. xvii, figs. 3, 4.
Carpenter, W. M. 1846 A, p. 249. (*Orycterotherium*; "identification very doubtful.")
Claypole, E. W. 1891 A.
Cooper, W. 1831 A, p. 172. ("Megalonyx.")
 1833 A, p. 166. ("Megalonyx.")
Cope, E. D. 1871 I, p. 85.
 1889 P, p. 666. (*M. laqueatus*.)
 1896 H, p. 458, pl. x, figs. 1, 2. (*M. harlani*.)
 1899 A, p. 210. (*M. harlani*.)
Dickeson, M. W. 1846 A. (*Megalonyx laqueatus*.)
Flower and Lydekker 1891 A, p. 189.
Glebel, C. G. 1847 A, p. 118.
Harlan, R. 1831 B, p. 74, in part; pl. iii, figs. 1-3. (*Megalonyx laqueatus*.)
 1835 C, p. 334, pl. xv, figs. 2-4. (*Megalonyx laqueatus*.)
 1842 A, p. 392. ("Orycterotherium.")
 1842 B, p. 141 (*Megalonyx laqueatus*, *Aulaxodon* *acut* *Pleurodon*, in part); p. 142 (*Orycterotherium missouriense*.)
 1842 C, p. 111. (*Orycterotherium missouriense*.)
 1843 A, p. 209 (*Megalonyx laqueatus*); p. 210 (*Orycterotherium missouriense*.)
 1843 B, pls. 1-iii. (*Megalonyx laqueatus*, *Orycterotherium missouriense*.)
Holmes, F. S. 1858 B. ("Megalonyx.")
Leidy, J. 1853 E. (*Eubradys antiquus*.)
 1854 A, p. 10.
 1855 B, pp. 47, 58, pl. xiv, figs. 1-3; pl. xvi, figs. 19, 20.

MOROTHERIUM Marsh.

- Marsh, O. C.* 1874 C, p. 531.
Flower and Lydekker 1891 A, pp. 190, 413. (Syn. of *Chalicotherium*.)
Marsh, O. C. 1876 G, p. 61.

- Leidy, J.* 1860 B, p. 111, pl. xx, figs. 7-7b.
 1869 A, p. 413.
 1871 C, p. 365.
 1884 A.
 1885 B. (*M. harlani*; ?*Orycterotherium missouriense*.)
 1889 F, p. 33, pl. v, figs. 1-4.
Lydekker, R. 1887 A, p. 106.
Lyell, C. 1843 B, p. 123. ("Mylodon.")
 1844 A, p. 323. (*Megalonyx*.)
Nicholson and Lydekker 1889 A, p. 1299.
Owen, R. 1842 D.
 1843 B, p. 341. (*M. harlani*, *Megalonyx laqueatus*.)
 1845 B, p. 335.
 1845 C.
Perkins, H. C. 1842 A. ("Mylodon"; identification doubtful.)
 1843, in *Harlan R.* 1843 B, p. 80. (*Orycterotherium oregonense*.)
 1844 A, p. 135. (*Orycterotherium oregonense*.)
Pictet, F. J. 1853 A, p. 270.
Roger, O. 1896 A, p. 98.
Trouessart, E. L. 1896 A, p. 1115.
Walls, B. L. C. 1854 A, p. 286.
Williston, S. W. 1896 A, p. 175, figs. 1, 2. (Identification doubtful.)
Wilson, T. 1892 A. ("Mylodon.")
Zittel, K. A. 1893 B, p. 138. (*M. laqueatus*.)
 In addition to the above a few references, mostly of minor importance, may be found in *Leidy, J.* 1869 A, pp. 413, 414.
 Pleistocene; Kentucky, Missouri, Louisiana, Mississippi, South Carolina, Oregon, Kansas?, Pennsylvania?
- Mylonodon renidens** Cope.
Cope, E. D. 1896 H, p. 460, pl. x, fig. 3; pl. xi, figs. 5, 6.
Roger, O. 1896 A, p. 98.
Trouessart, E. L. 1896 A, p. 1116.
 Pleistocene; Louisiana.
- Mylonodon sodalis** Cope.
Cope, E. D. 1878 H, p. 385.
 1889 F.
 1890 P, p. 660, fig. 1.
 1898 S, pp. 978, 980.
 1898 A, p. 87.
Roger, O. 1896 A, p. 98. (Syn. of *M. harlani*.)
Trouessart, E. L. 1896 A, p. 1116. (Syn. of *M. harlani*.)
 Pliocene; Oregon, Texas?
- Mylonodon sulcidens** Cope.
Cope, E. D. 1896 H, p. 462, pl. x, fig. 4; pl. xi, fig. 7.
Roger, O. 1896 A, p. 98.
Trouessart, E. L. 1896 A, p. 1116.
 Pleistocene; Louisiana.

Type *M. gigas* Marsh.

- Marsh, O. C.* 1883 B.
 1892 D, p. 448.
 1897 B, p. 144.
Zittel, K. A. 1893 B, p. 136.

Morotherium gigas Marsh.

- Marsh, O. C. 1874 C, p. 531.
 King, C. 1878 A, p. 443.
 Marsh, O. C. 1897 B, p. 143, figs. 8, 9.
 Roger, O. 1896 A, p. 96.
 Trouessart, E. L. 1898 A, p. 1107.
 Pliocene; California.

Morotherium leptonyx Marsh.

- Marsh, O. C. 1874 C, p. 532.
 King, C. 1878 A, p. 443.
 Roger, O. 1896 A, p. 96.
 Trouessart, E. L. 1898 A, p. 1107.
 Pliocene; Idaho.

GLYPTODONTIDÆ.

- Ameghino, F. 1883 A. (Glyptodontes.)
 1889 A, p. 758 (Glyptodontia); p. 775 (Glyptodontidæ).
 Burmeister, H. 1865 A.
 1865 C.
 1866 B, p. 183. (Biloricata.)
 1871 B.
 1872 A. ("Glyptodonten.")
 1874 A.
 1879 A.
 1879 B, p. 388. (Loricata.)
 Cope, E. D. 1889 C, p. 207.
 1889 P, p. 658.
 Flower, W. H. 1882 A.
 Flower and Lydekker 1891 A, p. 202.

- Gadow, H. 1898 A, p. 42. (Dasypodidæ, part.)
 Lydekker, R. 1887 A, p. 114.
 1894 A, p. 1.
 1896 B, p. 94.
 Mercerat, A., 1891, Revista Mus. La Plata, ii, p. 27 (Hoplophoridae.)
 Nicholson and Lydekker 1889 A, p. 1292.
 Reh, L. 1895 A, p. 170.
 Roger, O. 1896 A, p. 101.
 Schlosser, M. 1890 C, p. 251.
 Steinmann and Döderlein 1890 A, p. 738.
 Trouessart, E. L. 1898 A, p. 1123.
 Woodward, A. S. 1896 B, p. 282.
 Zittel, K. A. 1893 B, p. 144.

GLYPTODON Owen. Type *G. clavipes* Owen.

- Owen, R., 1838, Parish's Buenos Ayres and La Plata.
 p. 178 B.
 Ameghino, F. 1883 A.
 1889 A, p. 775.
 1892 A, p. 22.
 Blainville, H. M. D. 1864 A, iv, EE, p. 47, pls. i, ii.
 Burmeister, H. 1864 A.
 1865 A.
 1865 C.
 1866 A.
 1866 B, p. 185.
 1871 A.
 1871 B.
 1874 A.
 1879 A.
 1879 B, p. 420.
 Cope, E. D. 1889 P, p. 662.
 Flower, W. H. 1883 D, p. 387, figs. 39, 40.
 Flower and Lydekker 1891 A, p. 202.
 Giebel, C. G. 1847 A, p. 109.
 Hale, C. S. 1848 A, p. 357.
 Holmes, F. S. 1868 B.
 Huxley, T. H. 1865 A.
 1872 A, p. 291.
 Koken, E. 1888 C.
 Lund, P. W. 1839 B, p. 218. (Hoplophorus.)
 Lydekker, R. 1887 A, p. 114.
 1894 A, p. 3.
 1896 B, p. 96.
 Meyer, H. 1865 A.
 Natural Science 1893 A, p. 140, fig. 2.
 Nicholson and Lydekker 1889 A, p. 1298.
 Owen, R. 1840 B.
 1845 A.
 1847 C, p. 67.
 Pictet, F. J. 1858 A, p. 278.
 Pouchet, G. 1866 A.
 Quenstedt, F. A. 1885 A, p. 63.

- Reinhardt, J. 1875 A.
 Röse, C. 1892 D, p. 511.
 Serres, M. 1865 A.
 1865 B.
 Steinmann and Döderlein 1890 A, p. 738.
 Trouessart, E. L. 1898 A, p. 1125.
 Woodward, A. S. 1896 B, p. 283.
 Zittel, K. A. 1893 B, p. 144.

Glyptodon euphractus Lund.

- Lund, P. W., 1838, Overs. K. Danske Vid. Selskab.
 Forh. viii, p. lii. (Hoplophorus.)
 Ameghino, F. 1883 A, p. 28.
 1889 A, p. 781, pl. liii, fig. 8.
 Burmeister, H. 1871 A, pl. viiiA. (Hoplophorus.)
 1879 B, p. 410. (Hoplophorus.)
 Gervais and Ameghino 1880 A, p. 202. (G. euphractus, G. sellowi.)
 Leidy, J. 1889 E, p. 25. (Hoplophorus oratus?)
 1892 A, p. 129. (Hoplophorus.)
 Lund, P. W. 1839 B, p. 218. (Hoplophorus.)
 1841 A, p. 70, pl. i, fig. 11; pl. xi; pl. xiv; pl. xv, figs. 1-7. (Hoplophorus.)
 1842 A, pl. xxxv, figs. 1-4. (Hoplophorus.)
 Lydekker, R. 1887 A, p. 121.
 1894 A, p. 11.
 Owen, R. 1868 A, p. 273.
 Pouchet, G. 1866 A, p. 337, pls. ix, x. (Hoplophorus.)
 Reinhardt, J. 1875 A, p. 165. (Hoplophorus, Schisopleurum.)
 Roger, O. 1896 A, p. 101.
 Trouessart, E. L. 1898 A, p. 1127.
 Pliocene; South America, Florida.

Glyptodon petaliferus Cope.

- Cope, E. D. 1883 N, p. 345.

Cope, E. D. 1889 F.

1889 P, p. 662.

1892 AA, p. 130.

Ledy, J. 1889 E, p. 25, pl. iv, fig. 9.

Roger, O. 1896 A, p. 108.

Trouessart, E. L. 1896 A, p. 1127.

Zittel, K. A. 1893 B, p. 147.

Pliocene: Mexico, Texas, Florida.

Glyptodon reticulatus Owen.

Owen, R., 1845, Cat. Foss. Mam. Aves. Roy. Coll. Surg., p. 119.

Ameghino, F. 1883 A, p. 28. (G. asper.)

1889 A, p. 784, pl. i, figs. 1-8; pl. ii, figs. 1, 2; pl. iii, figs. 1-3; pl. liv, figs. 1-11.

Burmeister, H. 1864 A, p. 75.

1866 B, p. 200, pl. vi; pl. vii, figs. 4-6; pl. viii, fig. 6 (G. asper, original description); p. 206 (G. reticulatus).

Burmeister, H. 1874 A, p. 268, pls. xxiii, xxiv, xixv; pl. xxv, fig. 1; pl. xxviii, fig. 1; pl. xxix, figs. 4, 6; pl. xxx, figs. 1, 4; pl. xxxi; pl. xxxii, fig. 2; pl. xxxiii, figs. 2, 3, 5, 6; pl. xxxiv, fig. 2; pl. xxxvii; pl. xl, fig. 1 (G. asper); p. 385 (G. reticulatus).

1879 B, p. 422 (G. reticulatus); p. 424 (Schistopleurum asperum).

Gervais and Ameghino 1880 A, p. 198. (G. typus.)

Ledy, J. 1889 E, p. 27, pl. v, figs. 11, 12. (G. asper.) 1892 A. (G. asper.)

Lydekker, R. 1887 A, p. 117.

1894 A, p. 5.

Nodot, L. 1855 A. (Schistopleurum.)

Roger, O. 1896 A, p. 102.

Trouessart, E. L. 1896 A, p. 1125.

Additional synonymy and literature in Ameghino, F. 1889 A, p. 784.

Pliocene; South America, Florida.

TOMIOPSIS Cope. Type *T. ferruminatus* Cope.

Cope, E. D. 1898 E, p. 317.

The position of this genus is uncertain.

Tomiopsis ferruminatus Cope.

Cope, E. D. 1898 E, p. 317.

Neocene; Texas.

DASYPODIDÆ.

Broom, R. 1897 A.

Burmeister, H. 1879 B, p. 426. (Dasypodidæ.)

1883 A. (Genus Eutatus.)

Cope, E. D. 1889 P, p. 658.

Flower, W. H. 1868 A.

1882 A.

1883 D, p. 386.

1885 A.

Flower and Lydekker, 1891 A, p. 194.

Gadow, H. 1898 A, p. 42. (Dasypodidæ, part.)

Giebel, C. G. 1867 A, p. 545. (Dasypus.)

Gill, T. 1872 B, p. 24.

Gray, J. E. 1869 A, p. 377.

Hæckel, E. 1895 A, p. 516. (Dasypodida.)

Huxley, T. H. 1872 A, p. 290.

Lydekker, R. 1887 A, p. 135.

1894 A, p. 51.

1896 B, p. 94.

Nicholson and Lydekker 1889 A, p. 1291.

Owen, R. 1832 A. (Dasypodæ.)

1851 C, p. 743. (Dasypus.)

1855 B, p. 381.

Roemer, F. 1892 A, p. 525.

1893 A,

Roger, O. 1896 A, p. 107.

Schlosser, M. 1890 C, p. 251.

Steinmann and Döderlein 1890 A, p. 739.

Weber, M. 1893 A.

1893 B.

Zittel, R. A. 1893 B, p. 150. (Subord. Dasypoda.)

CHLAMYTHERIUM Lund. Type *C. humboldtii* Lund.

Lund, P. W., 1838, Overs. K. Danske Vid. Selsk.

Forh., viii, p. lii.

Ameghino, F. 1883 A. pp. 23, 33.

1886 A, p. 203.

Flower and Lydekker 1891 A, p. 201.

Gervais and Ameghino 1880 A, p. 211.

Lydekker, R. 1887 A, p. 135.

1894 A, p. 52.

Lund, P. W. 1839, A, p. 572.

1839, B, p. 217.

1841 A, pp. 69, 232.

1842 A, p. 137, pl. xxxiv; pl. xxxv, fig. 5.

Pictet, F. J. 1853 A, p. 274.

Röde, C. 1892 D, p. 516.

Zittel, K. A. 1893 B, p. 151.

The name of this genus is usually spelled *Chlamytherium*; but the original form is that here given. The original description is adequate.

Chlamytherium humboldtii Lund.

Lund, P. W., 1838, Overs. K. Danske Vid. Selsk.

Forh., viii, p. lii.

Ameghino, F. 1883 A, p. 33.

Cope, E. D. 1889 P, p. 662 ("Glyptodon floridanus" Ledy.)

1892 AA, p. 130.

Ledy, J. 1889 B, p. 97. (Glyptodon septentrionalis.)

1889 E, p. 24, pl. iv, figs 3-6.

1892 A.

Lund, P. W. 1839 B, p. 217.

1841 A, p. 69, pl. i, figs. 7-10, 12, 13; pl. ii, figs.

1-3; pl. xii, figs. 1, 6, 7; pl. xiii, figs. 2, 6,

7-11; pl. xiv, fig. 1.

1842 A, p. 137, pl. xxxiv; pl. xxxv, fig. 5.

Lydekker, R. 1887 A, p. 136.

1896 B, p. 96.

¹ The writer has made search in Ledy's papers without finding this name. It occurs in neither Ledy's nor Cope's lists in Bull. No. 84, U. S. Geol. Survey (Correlation paper). The name is probably due to an error on part of Professor Cope.

Roger, O. 1896 A, p. 103 (Glyptodon septentrionalis); p. 108 (C. humboldti).
 Trouessart, E. L. 1898 A, p. 1127 (Glyptodon septentrionalis); p. 1137 (C. humboldti).

Zittel, K. A. 1898 B, p. 147 (Glyptodon floridanus);
 p. 152 (C. humboldti).
 Pliocene; South America, Florida.

Order SIRENIA.

Allen, J. A. 1881 A.
 Baur, G. 1887 A, p. 498.
 Brandt, J. F. 1862 A.
 1862 B.
 1868 A.
 Cope, E. D. 1880 B, p. 456.
 1887 S, p. 342.
 1889 C, p. 142.
 1889 R, pp. 874, 876.
 1890 F.
 1898 B, p. 109.
 Cuvier, G. 1834 A, viii, pt. ii, pp. 1-74, pls. ccxx, ccxxi.
 Flot, L. 1886 A.
 1886 B.
 Flower, W. H. 1876 B, xiii, p. 409.
 1883 A.
 1883 D, p. 389.
 1885 A.
 Flower and Lydekker 1891 A, p. 212.
 Gadow, H. 1898 A, p. 42.
 Gegenbaur, C. 1898 A.
 Gervais, P. 1874 B, p. 578. ("Sirenides.")
 Gill, T. 1872 A, p. 301.
 1872 B, pp. 13, 48, 91.
 1873 A.
 Gill and Coues, 1877 A, p. 1041.
 Gray, J. E. 1866 A, p. 356.
 Haeckel, E. 1896 A, p. 567.
 Hay, O. P. 1899 F, p. 682.
 Huxley, T. H. 1872 A, p. 330.

Krauss, F. 1856 A.
 1862 A.
 1870 A.
 Kükenthal, W. 1890 C.
 1897 A.
 Lartet, E. 1866 A.
 Lepsius, G. R. 1881 A. (Sirenia.)
 Lydekker, R. 1892 A.
 1896 B,
 Marsh, O. C. 1877 E.
 Nicholson and Lydekker 1889 A, p. 212.
 Owen, R. 1866 B, p. 429.
 1868 A, p. 253.
 1875 A.
 1875 B.
 Parker, W. K. 1868 A, p. 218.
 Roger, O. 1896 A, p. 247.
 Ryder, J. A. 1878 A.
 1885 D.
 Schlosser, M. 1889 A.
 1890 D.
 Schmidt, O. 1886 A, p. 242.
 Seeley, H. G. 1888 N, p. 131.
 Slade, D. D. 1888 A, p. 244.
 Steinmann and Döderlein 1890 A, p. 708.
 Tomes, C. S. 1898 A, p. 385.
 Trouessart, E. L. 1898 A, p. 999.
 Woodward, H. 1885 D.
 Zigno, A. de 1887 A.
 Zittel, K. A. 1893 B, pp. 187, 201, 740.

PRORASTOMIDÆ.

Cope, E. D. 1889 R, p. 876.
 1890 F, p. 698.
 Flower and Lydekker 1891 A, p. 224. (Halitheriidae.)
 Gadow, H. 1898 A, p. 43.
 Haeckel, E. 1895 A, p. 566. (Hallicorida.)
 Zittel, K. A. 1893 B, p. 194.

This family is based on *Prorastomus sirenoides*,

Owen, found in the island of Jamaica. The following references are given to the literature of this animal: Owen, R. 1855 C; Owen, R. 1875 B, pls. xxviii, xxix; Leidy, J. 1869 A, p. 414; Trouessart, E. L. 1898 A, p. 999; Thomas and Lydekker 1897 A, p. 599; Lepsius, G. R. 1881 A; Tomes, C. S. 1898 A, p. 390.

HALITHERIIDÆ.

Gill, T. 1872 B, pp. 13, 91, 92.
 Brandt, J. F. 1868 A, p. 344. (<Hallicorida.)
 Cope, E. D. 1889 R, p. 876.
 1890 F, p. 698.
 1898 B, p. 110.
 Flower and Lydekker 1891 A, p. 222.

Lepsius, G. R. 1881 A. (Halitherium.)
 Lydekker, R. 1887 A, p. 5.
 Nicholson and Lydekker 1889 A, p. 1310.
 Roger, O. 1896 A, p. 247.
 Trouessart, E. L. 1898 A, p. 1004. (Hallicoridae.)
 Zittel, K. A. 1893 B, p. 196. (<Hallicoridae.)

DIOPLOTHERIUM Cope. Type *D. manigaultii* Cope.

Cope, E. D. 1888 N.
 1883 X.
 1890 W, p. 698.

Flower, W. H. 1885 A, p. 223.
 Flower and Lydekker 1891 A, p. 223.
 Nicholson and Lydekker 1889 A, p. 1311.

¹The writer has made search in Leidy's papers without finding this name. It occurs in neither Leidy's nor Cope's lists in Bull. No. 84, U. S. Geol. Survey (Correlation paper). The name is probably due to an error on part of Professor Cope.

Zittel, K. A. 1893 B, p. 201.

It is not at all certain that this genus belongs among the Sirenia.

Dioplotherium manigaultii Cope.

Cope, E. D. 1883 N.

HEMICAULODON Cope. Type *H. effodiens* Cope.

Cope, E. D. 1869 E, p. 190.

1883 N, p. 52.

Zittel, K. A. 1893 B, p. 201.

A genus of uncertain position.

Hemicaulodon effodiens Cope.

Cope, E. D. 1869 E, p. 191, pl. v, fig. 6.

Cope, E. D. 1883 X.

1890 F, p. 696, pl. xxv, figs. 1-5.

Roger, O. 1896 A, p. 249.

Trouessart, E. L. 1898 A, p. 1006.

Tertiary (Phosphate beds); South Carolina.

Brandt, J. F. 1873 A, p. 290.

Cope, E. D. 1890 F, p. 699.

Leidy, J. 1869 A, p. 440.

Roger, O. 1896 A, p. 249.

Trouessart, E. L. 1898 A, p. 1006.

Eocene; New Jersey.

DESMOSTYLUS Marsh. Type *D. hesperus* Marsh.

Marsh, O. C. 1888 B, p. 95.

Flower and Lydekker 1891 A, p. 223.

Nicholson and Lydekker 1899 A, p. 1310.

Zittel, K. A. 1893 B, p. 201.

A genus of doubtful position.

Desmostylus hesperus Marsh.

Marsh, O. C. 1888 B, p. 95, figs. 1-3.

Roger, O. 1896 A, p. 249.

Trouessart, E. L. 1898 A, p. 1006.

Tertiary; California.

TRICHECHIDÆ.

Gill, T. 1872 B, pp. 14, 91.

Blainville, H. M. D. 1864 A, iii, U, pla. 1-xi. ("Lamantinos.")

Brandt, J. F. 1868 A, p. 343. (Manatidæ.)

Cope, E. D. 1890 F, p. 700. (Manatidæ.)

Flower, W. H. 1885 A, p. 215. (Manatidæ.)

Flower and Lydekker 1891 A, p. 215. (Manatidæ.)

Gray, J. E. 1866 A, p. 357. (Manatidæ.)

Haeckel, E. 1895 A, p. 566. (Manatida.)

Nicholson and Lydekker 1899 A, p. 1311. (Manatidæ.)

Roger, O. 1896 A, p. 247. (Manat. idæ.)

Trouessart, E. L. 1898 A, p. 999. (Manatidæ.)

Zittel, K. A. 1893 B, p. 195. (Manatidæ.)

TRICHECHUS Linn. Type *T. manatus* Linn.

Linnaeus, C., 1758, Syst. Nat., ed., 10, i, p. 34.

Unless otherwise indicated, the following writers employ for the genus the name *Manatus*.

Allen, J. H. 1846 A.

Baikie, B. 1857 A.

Blainville, H. M. D. 1864 A, iii, U, plates.

Brandt, J. F. 1862 A.

1862 B.

1868 A.

Cope, E. D. 1890 F, p. 700.

Cuvier, G. 1834 A, viii, pt. ii, pp. 16-40, pl. ccxx, figs. 1, 2. (No generic name.)

Flower, W. H. 1876 B, xlii, p. 410.

1885 A.

Flower and Lydekker 1891 A, p. 215.

Gill, T. 1873 A.

Gray, J. E. 1867 A.

Harlan, R. 1834 B, p. 78.

1835 B, p. 278.

1835 J, p. 386.

Howes and Harrison 1893 A.

Kneeland, S. 1850 A.

Krauss, F. 1856 A.

1862 A.

Kükenthal, W. 1890 C.

1891 C.

1896 A.

1897 A.

Lepsius, G. R. 1881 A.

Murie, J. J. 1872 A.

Owen, R. 1845 B, p. 371, pl. xcvi.

1868 A, p. 234.

1875 A.

1875 B.

Parker, W. K. 1868 A, p. 218.

Thomas and Lydekker 1897 A, p. 596. (Trichechus.)

Trouessart, E. L. 1898 A, p. 1000.

Ward, H. L. 1887 A.

Woodward, H. 1885 D, p. 424.

Zittel, K. A. 1893 B, p. 195.

Trichechus antiquus (Leidy.)

Leidy, J. 1856 J, p. 165. (Manatus.)

Cope, E. D. 1890 F, p. 700. (M. fossilis.)

Leidy, J. 1860 B, p. 117, pl. xxiv, figs. 5-7. (Manatus.)

1869 A, p. 414. (Manatus.)

1877 A, p. 214. (Manatus.)

1889 E, p. 27. (Manatus.)

1892 A. (Manatus.)

Roger, O. 1896 A, p. 247. (Manatus.)

Trouessart, E. L. 1898 A, p. 1000. (Manatus.)

Pleistocene; South Carolina: Pliocene (Peace Creek); Florida.

Not improbably the same as *T. manatus*.

Trichechus inornatus (Leidy.)

Leidy, J. 1878 B, p. 336, pl. xxxvii, figs. 16, 17. (Manatus.)

Roger, O. 1896 A, p. 247. (Manatus.)

Trouessart, E. L. 1898 A, p. 1000. (Manatus.)

Tertiary (Phosphate beds); South Carolina.

Trichechus manatus Linn.

Linnaeus, C., 1758, Syst. Nat. ed., 10, i, p. 34.

Balkie, B. 1857 A. (M. latirostris.)

Baur, G. 1887 D, p. 840. (Manatus americanus.)

Giebel, C. G. 1847 A, p. 231. (Manatus americanus fossilis.)

Gray, J. E. 1857 A. (M. latirostris, M. americanus.)

Hartlaub, C. 1886 A. (M. latirostris.)

Lepsius, G. R. 1881 A. (Manatus americanus.)

Murie, J. 1872 A. (M. americanus.)

Owen, R. 1866 B, p. 432. (M. americanus.)

Parker, W. K. 1868 A, p. 218, pl. xxix, fig. 21. (M. americanus.)

Trouessart, E. L. 1898 A, p. 1000. (M. latirostris.)

Recent; and probably including many or all

of the undetermined bones of *Manatus* which have been found along the Eastern and Floridan coasts.

Trichechus sp. indet.

The remains referred to in the following citations belong to uncertain and probably indeterminate species. Most of them probably belong to *T. manatus*.

Allen, J. H. 1846 A, p. 41. (Manatus.)

Cope, E. D. 1867 C, p. 138. (Manatus.)

De Kay, J. C. 1842 C, p. 123. (M. giganteus.)

Gibbes, R. W. 1850 C, p. 67. (Manatus.)

Harlan, R. 1834 B, p. 73. (Manatus.)

1835 B, p. 278. (Manatus.)

1835 J, p. 385. (Manatus.)

Leidy, J. 1854 A, p. 10. (Manatus.)

1869 A, p. 414. (Manatus.)

Pictet, F. J. 1853 A, p. 372. (M. americanus fossilis.)

Smith, J. L. 1844 A. (Manatus.)

Pleistocene; New Jersey, Maryland, Virginia, North Carolina, South Carolina, Florida.

HYDRODAMALIDÆ.

Palmer, T. S. 1895 A, p. 450.

Brandt, J. F. 1849 A, p. 141. (Edentata seu Rhytinae.)

1868 A, p. 100 (Rhytinae); p. 344 (<Haliceorida).

Cope, E. D. 1890 F, p. 701. (Rhytinae.)

Flower, W. H. 1885 A, p. 221. (Rhytinae.)

Flower and Lydekker 1891 A, p. 221. (Rhytinae.)

Gadow, H. 1896 A, p. 45. (Haliceoridae, part.)

Gill, T. 1872 B, p. 14. (Rhytinae.)

Haeckel, E. 1896 A, p. 566. (Rhytinae.)

Lepsius, G. R. 1881 A. (Rhytinae.)

Lydekker, R. 1887 A, p. 15. (Rhytinae.)

Nicholson and Lydekker 1889 A, p. 1311. (Rhytinae.)

Zittel, K. A. 1893 B, p. 195. (<Haliceoridae.)

HYDRODAMALIS Retzius.

Retzius, 1894, K. Vet. Acad. Handl. Stockholm, xv, p. 292.

Baer, K. E. 1840 A. (Rytina.)

Brandt, J. F. 1849 A. (Rhytina.)

1862 A. (Rhytina.)

1862 B. (Rhytina.)

1862 C. (Rhytina.)

1867 D. (Rhytina.)

1868 A. (Rhytina.)

Cope, E. D. 1890 F, p. 698. (Rhytina.)

Flower and Lydekker 1891 A, p. 221. (Rhytina.)

Gray, J. E. 1866 A, p. 365. (Rytina.)

Lepsius, G. R. 1881 A. (Rhytina.)

Lydekker, R. 1887 A, p. 15. (Rhytina.)

Nordmann, A. 1862 A. (Rhytina.)

Owen, R. 1845 B, p. 316. (Rytina.)

1875 A. (Rhytina.)

1875 B. (Rhytina.)

Palmer, T. S. 1895 A.

Weyhe, — 1875 A, p. 100. (Rhytina.)

Woodward, H. 1885 D, p. 415. (Rhytina.)

Zittel, K. A. 1893 B, p. 206. (Rhytina.)

Hydrodamalis gigas (Zimm.).

Zimmermann, 1780, Geogr. Geschichte, ii, p. 426, fig. 5. (Manati). (Fide Trouessart.)

Brandt, J. F. 1849 A. (Rhytina borealis.)

1866 A, p. 113. (R. borealis.)

1866 C. (R. borealis.)

1867 A. (R. borealis.)

Type *H. gigas* (Zimm.).

Brandt, J. F. 1868 A, pls. i-ix. (R. borealis.)

Büchner, E. 1891 A, pl. i. (Rhytina.)

Claudius, M. 1867 A. (R. stelleri.)

Cope, E. D. 1890 F, p. 701. (R. gigas.)

Evermann, B. W. 1893 A. (R. gigas.)

Flower, W. H. 1876 B, xiii, p. 411.

1885 A, p. 231. (R. stelleri.)

Flower and Lydekker 1891 A, p. 222. (R. stelleri.)

Gray, J. E. 1866 A, p. 365. (R. gigas.)

Hutchinson, H. N. 1893 A, p. 246, pl. xxvi. (R. gigas.)

Lydekker, R. 1887 A, p. 15, fig. 5. (R. gigas.)

Murie, J. 1872 B. (Rhytina.)

Nicholson and Lydekker 1889 A, p. 1311. (R. gigas.)

Nordmann, A. 1862 A. (Rhytina stelleri.)

Palmer, T. S. 1895 A.

Roger, O. 1896 A, p. 249. (Rhytina.)

Stejneger, L. 1883 A. (R. gigas.)

1884 A. (R. gigas.)

1886 A, p. 317. ("Sea-cow.")

1887 A. (R. gigas.)

1893 A. (R. gigas.)

Steller, G. W. 1751 A. ("Manatus.")

Trouessart, E. L. 1898 A, p. 1008. (Rhytina.)

Woodward, H. 1885 A. (R. stelleri.)

1885 D, p. 417, fig. 2. (R. gigas.)

Zigno, A. de 1887 A. (R. borealis.)

Zittel, K. A. 1893 B, p. 200. (R. stelleri.)

Recently extinct; Commander Islands.

Order CETE Linn.

Linnaeus, C., 1758, Syst. Nat., ed. 10, 1, p. 75.

Unless otherwise indicated, the following authors use the term Cetacea for this order.

Albrecht, P. 1886 A.

Allen, J. A. 1881 A. (Cete.)

Brandt, J. F. 1873 A.

Cope, E. D. 1867 C, p. 144.

1890 B, p. 456.

1887 S, p. 342.

1889 C, p. 207.

1890 E.

1891 N, p. 69.

Duvernoy, G. L. 1861 A.

Flower, W. H. 1864 A.

1867 A.

1876 B, xiii, p. 449.

1883 A.

1883 D, p. 391.

1885 A.

Flower and Lydekker 1891 A, p. 225.

Gadow, H. 1898 A, p. 44.

Gegenbaur, C. 1896 A.

Gill, T. 1871 B.

1872 B, pp. 14, 49, 92. (Cete.)

1873 C.

Gill and Coues 1877 A, p. 1043.

Gray, J. E. 1886 A, p. 61.

Gruber, W. 1859 A.

Haeckel, E. 1896 A, p. 562. (Cetomorpha, part.)

Hay, O. P. 1899 F, p. 682.

Howes, G. B. 1888 A, p. 506.

Huxley, T. H. 1870 A.

1872 A, p. 333.

Jaekel, O. 1891 D, p. 198.

Küthenthal, W. 1888 A.

1889 A.

1890 A.

1890 B.

1890 C.

1891 C.

1893 B.

1893 C.

1895 A.

Leboucq, H. 1887 A.

1888 A.

Leboucq, H. 1896 A.

Leche, W. 1895 A, p. 119.

Ledy, J. 1871 C, p. 365.

Lydekker, R. 1896 B.

Marsh, O. C. 1877 E.

Murie, J. 1865 A.

Nicholson and Lydekker 1889 A, p. 1300.

Osborn, H. F. 1888 F, p. 1067.

1893 D.

Owen, R. 1843 A, p. 72.

1845 B, pp. 311, 345.

1851 C, p. 739.

1866 B, p. 415.

1868 A, p. 276.

Paquier, V. 1894 A, p. 18.

Parker, W. K. 1868 A, p. 217.

Roger, O. 1896 A, p. 75.

Ryder, J. A. 1885 D.

Schlösser, M. 1889 A.

1890 A.

1890 C.

Schmidt, O. 1886 A, p. 246.

Slade, D. D. 1888 A, p. 244.

Steinmann and Döderlein 1890 A, p. 705.

Struthers, J. 1871 A.

1872 A.

1881 A.

1888 A.

1893 A.

1895 A.

Thomas, O. 1892 B.

Tomes, C. S. 1896 A, p. 375.

Trouessart, E. L. 1896 A, p. 1009.

Van Beneden, P. J. 1868 A. ("Cétacés.")

1880 A.

1882 A.

Van Beneden and Gervais 1880 A. ("Cétacés.")

Weber, M. 1886 A.

1887 A.

1888 A.

Weyhe, — 1875 A, p. 99.

Woodward, A. S. 1896 B, p. 269.

Wortman, J. L. 1886 A, p. 413.

Zittel, K. A. 1893 B, pp. 155, 183, 745.

Suborder ZEUGLODONTES.

Ameghino, F. 1896 A, pp. 393, 409. (Zeuglodontes.)

Brandt, J. F. 1873 A, p. 291. (Zeuglodontina.)

Cope, E. D. 1889 R, p. 876. (Archæoceti.)

1890 E, p. 601. (Archæoceti.)

1896 B, p. 108. (Archæoceti.)

Dames, W. 1894 B. (Archæoceti.)

Flower, W. H. 1883 A. (Archæoceti.)

1883 D, p. 395. (Archæoceti.)

Flower and Lydekker 1891 A, p. 246. (Archæoceti.)

Gadow, H. 1898 A, p. 44. (Archæoceti.)

Gill, T. 1871 A. (Zeuglodontes.)

1871 B. (Zeuglodontia.)

1872 A, p. 301. (Zeuglodontia.)

1872 B, p. v (<Zeuglodontia); p. 14 (<Zeuglodontes).

1873 C.

Haeckel, E. 1896 A, p. 566. (Archiceta.)

Huxley, T. H. 1872 A, p. 349. (<Phocodontia.)

Lydekker, R. 1887 A, p. 49. (Archæoceti.)

Müller, J. 1847 E, p. 199. ("Zeuglodonten.")

1849 A. ("Zeuglodonten.")

1851 A. ("Zeuglodonten.")

Nicholson and Lydekker 1889 A, p. 1304. (Archæoceti.)

Pictet, F. J. 1853 A, p. 375. ("Zeuglodontes.")

Roger, O. 1896 A, p. 75. (Archæoceti.)

Thompson, D'A. W. 1890 A.

Trouessart, E. L. 1896 A, p. 1009. (Zeuglodontia.)

Weber, M. 1886 A, p. 235.

Woodward, A. S. 1896 B, p. 270. (Archæoceti.)

Zittel, K. A. 1893 B, p. 167.

BASILOSAURIDÆ.

Unless otherwise indicated, the following authors use the family name Zeuglodontidæ.

- Brandt, J. F. 1868 A, p. 351.
 1873 A, pp. 11, 291.
 1874 A, p. 28.
 Burmeister, H. 1879 B, p. 530.
 Cope, E. D. 1868 I, p. 184. (Basilosauridæ.)
 1890 E, p. 601 (Zeuglodontidæ); p. 614 (Basilosauridæ).
 Flower and Lydekker 1891 A, p. 246.
 Gill, T. 1871 B, p. 122. (Basilosauridæ.)
 1872 A, p. 301. (Basilosauridæ.)

- Gill, T. 1873 C. (Basilosauridæ.)
 Huxley, T. H. 1870 A.
 Lydekker, R. 1887 A, p. 49.
 1893 C.
 Natural Science 1894 A.
 Nicholson and Lydekker 1889 A, pp. 1301, 1304.
 Owen, R. 1865 B.
 Steinmann and Döderlein 1890 A, p. 706.
 Trouessart, E. L. 1898 A, p. 1009.
 Van Beneden, P. J. 1865 A, p. 65.
 Zittel, K. A. 1893 B, p. 167.

BASILOSAURUS Harlan. Type *Zeuglodon cetoides* Owen.

- Harlan, R. 1834 C.
 Bartlett, J. 1846 A. (Zeuglodon.)
 Blainville, H. M. D. 1864 A, iii, U, p. 134.
 Brandt, J. F. 1873 A, p. 295. (Zeuglodon.)
 1874 A, pp. 28, 47. (Zeuglodon.)
 Bronn, H. G. 1838 A, p. 1070.
 Buckley, S. B. 1843 A. (Zygodon.)
 1846 A. (Basilosaurus.)
 Burmeister, H. 1871 C. (Zeuglodon.)
 Carus, C. G. 1847 A. (Hydrarchus.)
 1849 A. (Zeuglodon.)
 Conrad, T. A. 1840 A.
 Cope, E. D. 1867 C, p. 155.
 1889 C, p. 207.
 Dames, W. 1883 B, p. 132. (Zeuglodon.)
 1894 A, p. 219. (Zeuglodon.)
 1894 B. (Zeuglodon.)
 Dana, J. D. 1875 A. (Zeuglodon.)
 1896 A, p. 931. (Zeuglodon.)
 Delfortrie, E. 1874 A. (Zeuglodon.)
 Emmons, E. 1845 A.
 1845 B.
 1846 A.
 Flower, W. H. 1876 B, xiii, p. 450. (Zeuglodon.)
 1883 A. (Zeuglodon.)
 1883 D, p. 395. (Zeuglodon.)
 Flower and Lydekker 1891 A, p. 246. (Zeuglodon.)
 Gaudry, A. 1878 B, p. 39.
 Gelnitz, B. 1847 A.
 Gibbes, R. W. 1847 B.
 Glebel, C. G. 1847 C, p. 717. (Hydrarchos.)
 Hammerschmidt, C. E. 1848 A.
 Harlan, R. 1834 B, p. 77.
 1834 C, p. 397.
 1834 E.
 1835 B, p. 282.
 1835 D.
 1835 F.
 1839 A, p. 23.
 Huxley, T. H. 1870 A. (Zeuglodon.)
 1870 B, p. xlviii. (Zeuglodon.)
 1872 A, p. 349. (Zeuglodon.)
 Jaekel, O. 1891 D, p. 196. (Zeuglodon.)
 Koch, A. 1845 A. (Hydrarchos, or Hydrargos.)
 1851 A. (Zeuglodon.)
 1851 B. (Zeuglodon.)
 1857 B. (Zeuglodon.)
 Leidy, J. 1869 A, p. 427.

- Lister, G. 1846 A. (Zeuglodon.)
 Lucas, F. A. 1895 A. (Zeuglodon.)
 1900 C, p. 810.
 Lydekker, R. 1887 A, p. 49. (Zeuglodon.)
 1898 C, p. 558. (Zeuglodon.)
 Marsh, O. C. 1877 E, p. 372.
 Meyer, H. 1847 A.
 Mölln, R. 1859 A, p. 125. (Zeuglodon.)
 Müller, J. 1847 A. (Basilosaurus.)
 1847 B. (Zeuglodon.)
 1847 C. (Zeuglodon.)
 1847 E. (Zeuglodon.)
 1849 A. (Zeuglodon.)
 1851 A. (Zeuglodon.)
 Natural Science 1894 A. (Zeuglodon.)
 Nicholson and Lydekker 1889 A, p. 1304.
 Osborn, H. F. 1893 D. (Zeuglodon.)
 Owen, R. 1839 B, p. 24. (Zeuglodon; to replace
 Basilosaurus of Harlan.)
 1841 C. (Zeuglodon.)
 1845 B, p. 360. (Zeuglodon.)
 1865 B. (Zeuglodon.)
 Probst, J. 1836 A, p. 137. (Zeuglodon.)
 Rogers, H. D. 1845 A. (Zeuglodon.)
 Schlosser, M. 1890 A, p. 87. (Zeuglodon.)
 Thompson, D'A. W. 1890 A.
 Trouessart, E. L. 1898 A, p. 1009. (Zeuglodon.)
 Van Beneden, P. J. 1861 A. (Zeuglodon.)
 1865 A, p. 65. (Zeuglodon.)
 Warren, J. C. 1854 D. (Zeuglodon.)
 Weber, M. 1886 A, p. 233. (Zeuglodon.)
 Woodward, A. S. 1898 B, p. 270.
 Wyman, J. 1850 E. (Zeuglodon.)
 Zittel, K. A. 1893 B, p. 167.

Basilosaurus brachyspondylus
(Müller).

- Müller, J. 1847 B, p. 388. (Zeuglodon.)
 Brandt, J. F. 1874 A, p. 47. (Zeuglodon.)
 Cope, E. D. 1867 C, p. 155. (Doryodon.)
 1890 E, p. 602. (Zeuglodon.)
 Dames, W. 1883 B, p. 132. (Zeuglodon.)
 1894 B. (Zeuglodon.)
 Dana, J. D. 1875 A, p. 342. (Zeuglodon.)
 Koch, A. 1845 A, p. 676. ("Zygodon," in part.)
 1851 B, pl. vii. (Zeuglodon.)
 Eocene; Alabama.

Basilosaurus cetoides (Owen).

- Owen, R. 1841 C, p. 69, pls. vii-ix. (Zeuglodon.)
 Agassiz L. 1848 A, p. 4. (Zeuglodon.)
 Bouvé, T. T. 1859 A, p. 49. ("Zeuglodon.")
 Buckley, S. B. 1848 A, p. 409. ("Zygodon.")
 1846 A, p. 125. (Zeuglodon.)
 Carus, C. G. 1847 A. (Hydrarchus harlani, in part.)
 1849 A, p. 385, pl. xxxix A, fig. 4. (Zeuglodon.)
 Cope, E. D. 1867 C, p. 155.
 1868 I, p. 185. (Polyptychodon interruptus Emmons a synonym?)
 1890 E, p. 602 (Zeuglodon; p. 614 (Basilosaurus)).
 Dames W. 1883 B, p. 185. (Z. cetoides.)
 1894 B. (Z. macrospendylus.)
 Dana, J. D. 1875 A, p. 842. (Z. macrospendylus.)
 1875 B. ("Hydrarchus harlani.")
 1896 A, p. 908, fig. 1832. (Zeuglodon.)
 De Kay, J. E. 1842 C, p. 123. (Z. harlani.)
 Emmons, E. 1845 A, figures. (Zeuglodon.)
 1845 B. (Zeuglodon.)
 1846 A, pls. i, ii. (Zeuglodon.)
 1851 A. (Zeuglodon.)
 1858 B, p. 201, fig. 25. (Zeuglodon.)
 Geinitz, H. B. 1847 A. ("Hydrarchus harlani.")
 1847, in Carus, C. G. 1847 A, p. 1.
 Gervais, P. 1874 B, p. 58, pl. xix, figs. 6, 7. (Zeuglodon.)
 Gibbes, R. W. 1847 B, pl. i, figs. 1-4, 8.
 1850 A.
 Giebel, C. G. 1847 D.
 Hammerschmidt, C. E. 1848 A. (B. kockii, B. harlani.)
 Harlan, R. 1834 B, p. 77. ("Basilosaurus.")
 1834 C, p. 397, pl. xx, figs. 1, 2. ("Basilosaurus.")
 1835 D, p. 337. ("Basilosaurus.")
 1835 F, p. 349, pls. xxvi-xxviii. (Basilosaurus.)
 1839 A, p. 23. ("Basilosaurus.")
 1839 B. ("Basilosaurus.")
 1839 C. ("Basilosaurus.")
 1840 A, p. 67. ("Basilosaurus.")

- Koch, A. 1845 A. (Zeuglodon macrospendylus, Hydrarchus harlani.)
 1845 B, p. 676. ("Zygodon," in part.)
 1851 A. (Zeuglodon macrospendylus.)
 1857 A. ("Zeuglodon.")
 1857 B. (Zeuglodon macrospendylus.)
 Leidy, J. 1869 A, p. 427.
 1889 B, p. 95. (Zeuglodon.)
 Lucas, F. A. 1895 B, p. 745. (Zeuglodon.)
 1900 C, p. 809. (Basilosaurus.)
 1900 E, p. 327, pls. v-vii. (Basilosaurus.)
 Lydekker, R. 1887 A, p. 50. (Zeuglodon.)
 Lyell, C. 1846 C, p. 409. ("Zeuglodon.")
 Müller, J. 1847 A, p. 421. (Zeuglodon.)
 1847 B. (Zeuglodon macrospendylus.)
 1847 C. (Zeuglodon.)
 1847 D. (Zeuglodon.)
 1847 E, p. 198. (Zeuglodon macrospendylus.)
 1849 A, plates. (Zeuglodon macrospendylus.)
 1851 A. (Zeuglodon macrospendylus.)
 Owen, R. 1839 B, p. 24. ("Zeuglodon.")
 1845 B, p. 360, pl. xci. (Zeuglodon.)
 1860 E, p. 345, figs. 108, 109. (Zeuglodon.)
 Pictet, F. J. 1858 A, p. 378. (Zeuglodon macrospendylus, hydrarchus, trachyspondylus.)
 Quenstedt, F. A. 1852 A, p. 73. (Zeuglodon.)
 1885 A, p. 112. (Zeuglodon.)
 Roger, O. 1896 A, p. 75. (Zeuglodon.)
 Schuchert, C. 1900 A, p. 328.
 Trouessart, E. L. 1898 A, p. 1009. (Zeuglodon.)
 Tuomey, M. 1847 A, p. 283, figures. ("Zeuglodon.")
 1847 B, p. 151. ("Zeuglodon.")
 1847 C. ("Zeuglodon.")
 Walles, B. L. C. 1854 A, p. 277. (Zeuglodon harlani.)
 Wyman, J. 1845 A. (Hydrarchos sillimani.)
 Zittel, K. A. 1893 B, p. 168, figs. 131, 132. (Zeuglodon.)
 Eocene; Alabama, Mississippi, Louisiana, Arkansas, Florida, North Carolina.
 For identification of the figures of Müller's plates (Müller J. 1849 A.), see Leidy, J. 1869 A, p. 430. Additional synonymy may also be found there.

DORUDON Gibbes. Type *D. serratus* Gibbes.

- Gibbes, R. W. 1845 A.
 Agassiz, L. 1848 A.
 Cope, E. D. 1867 C, p. 154. (Doryodon.)
 1890 E, p. 602. (Doryodon.)
 Gibbes, R. W. 1848 A.
 Leidy, J. 1852 C. (Pontogeneus, type *P. priscus*.)
 1869 A, p. 427.
 Lucas, F. A. 1900 C, p. 810.
 Müller, J. 1849 A, p. 1. (Syn. of Zeuglodon)
 1851 A. (Syn. of Zeuglodon.)
 Owen, R. 1846 C.
 1846 D.
 Zittel, K. A. 1893 B, p. 168.

Dorudon serratus Gibbes.

- Gibbes, R. W. 1845 A, p. 254, pl. i.
 Agassiz, L. 1848 A, p. 254.

- Amer. Jour. Science 1845 A, p. 218. ("Zeuglodon.")
 Carus, C. G. 1847 A. (Hydrarchus harlani.)
 1849 A, p. 369, pl. xxxix A, figs. 1-3; pl. xxxix B. (Zeuglodon hydrarchos.)
 Cope, E. D. 1867 C, p. 155. (Doryodon.)
 1868 I, p. 186. (Pontogeneus priscus; "Delphinoid.")
 1869 G, p. 6. (Pontogeneus priscus.)
 1890 E, p. 614. (Doryodon serratus.)
 Dames, W. 1894 B.
 Gibbes, R. W. 1845 A.
 1847 B, p. 5, pl. ii, figs. 1-8; pl. iii, figs. 4-6. (Basilosaurus cetoides, in part.)
 1848 A, p. 57.
 Koch, A. 1845 B, p. 676. ("Zygodon," in part.)
 1851 B, pl. vii. (Zeuglodon brachyspondylus.)

- Leidy, J. 1852 C, p. 52. (Pontogeneus.)
 1869 A, p. 428, pl. xxix, figs. 2-5.
 Lydekker, R. 1887 A, p. 50. (Zeuglodon hydrarchus; syn.? of *Z. cetoides*.)
 1892 B, p. 569. (*Z. hydrarchus*.)
 Müller, J. 1847 C, p. 108. (*D. serratus*, syn. of *Zeuglodon cetoides*.)
 1847 E, p. 198. (*Zeuglodon brachyspondylus*.)
 1849 A, pl. 1, fig. 1 (in part); pls. iii, iv; pl. v, fig. 1; pl. viii, figs. 3, 9, 10; pl. xii, fig. 11?; pl. xlii, figs. 1, 2, 6, 7; pl. xviii; pl. xix,

- Müller, J.—Continued.
 figs. 1-5; pls. xx, xxi; pl. xxiii, fig. 4; pl. xxvi; pl. xxvii, figs. 1, 2, 6 (*Zeuglodon brachyspondylus*.)
 1851 A. (*Zeuglodon brachyspondylus*.)
 Reichenbach, H. G. L., in Carus, C. G. 1847 A, p. 13. (*Basiloanurus kochii*.)
 Trouessart, E. L. 1896 A, p. 1010. (*Zeuglodon*.)
 Eocene; Alabama, South Carolina, Louisiana.
 It is possible that *Dorudon serratus* and *Zeuglodon brachyspondylus* are distinct species.

PONTOBASILEUS Leidy. Type *P. tuberculatus* Leidy.

- Leidy, J. 1873 B, p. 337.
 Trouessart, E. L. 1896 A, p. 1010.
 Zittel, K. A. 1893 B, p. 167. (Syn. of *Zeuglodon*.)

Pontobasileus tuberculatus Leidy.

- Leidy, J. 1873 B, p. 337, pl. xxxvii, fig. 15.
 Trouessart, E. L. 1896 A, p. 1010.
 Tertiary; Alabama?.

SAUROCETUS Agassiz. Type *S. gibbesii* Agassiz.

- Agassiz, L. 1848 A.
 Burmeister, H. 1871 C.
 Cope, E. D. 1890 E, p. 615.
 Leidy, J. 1869 A, p. 431.
 Trouessart, E. L. 1896 A, p. 1010. (Syn. of *Zeuglodon*.)

- Zittel, K. A. 1893 B, p. 171.
 A genus of uncertain position.

Saurocetus gibbesii Agassiz.

- Agassiz, L. 1848 A.
 Eocene; South Carolina.
 For additional references see under the genus.

Suborder ODONTOCETE Flower.

- Brandt, J. F. 1873 A, p. 202. (*Odontocetoides*.)
 Cope, E. D. 1889 B, p. 876. (*Odontoceti*.)
 1890 E, p. 602. (*Odontoceti*.)
 1896 B, p. 109. (*Odontoceti*.)
 Dames, W. 1894 B, p. 36. (*Odontoceti*.)
 Flower, W. H. 1864 A, p. 388. (*Delphinoidea*, or *Odontocete*.)
 1867 A, p. 111. (*Delphinoidea*, or *Odontocete*.)
 1868 A. (*Physeter*.)
 1871 A. (*Odontoceti*.)
 1876 B, xlii, p. 450. (*Odontoceti*.)
 1883 D, p. 396. (*Odontoceti*.)
 1885 A.
 Flower and Lydekker 1891 A, p. 247. (*Odontoceti*.)
 Gadow, H. 1898 A, p. 44. (*Odontoceti*.)

- Gill, T. 1871 B, p. 122. (*Denticete*.)
 1872 B, pp. 14, 93. (*Denticete*.)
 1873 C, p. 26. (*Denticetes*.)
 Gray, J. E. 1866 A, pp. 62, 194. (*Denticete*.)
 Haeckel, E. 1896 A, p. 566. (*Denticeta*, part.)
 Howes, G. B. 1888 A, p. 507. (*Odontoceti*.)
 Huxley, T. H. 1872 A, p. 340. (*Delphinoidea*.)
 Lydekker, R. 1887 A, p. 53. (*Odontoceti*.)
 Nicholson and Lydekker 1889 A, p. 1306. (*Odontoceti*.)
 Roger, O. 1896 A, p. 76. (*Odontoceti*.)
 Schlosser M. 1890 C, p. 241.
 Van Beneden and Gervais 1880 A, p. 298. ("Cetodontes.")
 Woodward, A. S. 1898 B, p. 271.
 Zittel, K. A. 1893 B, p. 163. (*Odontoceti*.)

SQUALODONTIDÆ.

- Cope, E. D. 1867 C, p. 144. (*Cynorcidae*.)
 1889 R, p. 876.
 1890 E, p. 602.
 1896 A, p. 139.
 Dames, W. 1894 B, p. 36. (*Squalodontidae*, *Mesoceti*.)
 Flower, W. H. 1883 D, p. 397.
 Flower and Lydekker 1891 A, p. 257.

- Gill, T. 1872 B, p. 14. (*Cynorcidae*.)
 Lydekker, R. 1887 A, p. 75.
 Nicholson and Lydekker 1889 A, p. 1306.
 Owen, R. 1865 B.
 Roger, O. 1896 A, p. 76.
 Steinmann and Döderlein 1890 A, p. 706.
 Van Beneden, P. J. 1865 A. ("Squalodons.")
 Zittel, K. A. 1893 B, p. 169.

SQUALODON Grateloup. Type *Delphinoides grateloupii* Pedroni.

- Grateloup, J. P. S. 1840 A, p. 206.
 Agassiz, L. 1841 A. (*Phocodon*, type *P. scillæ*.)
 Ameghino, F. 1896 A, p. 510.
 Brandt, J. F. 1873 A, pp. 299, 315.
 1874 A, p. 28.

- Cope, E. D. 1867 C, p. 150 (*Squalodon*; *Cynorca*, type *C. proterea*); p. 151 *Colophonodon*.)
 1868 I, p. 185. (*Cynorca*.)
 Dames, W. 1894 B, p. 19.
 Depéret, C. 1887 A, p. 278.

- Flower and Lydekker 1891 A, p. 257.
 Gervais, P. 1859 A, p. 309.
 1862 A.
 1876 A. (Phocodon.)
 Gaudry, A. 1878 B, p. 30.
 Gibbes, R. W. 1847 B.
 Jourdan, — 1861 A, p. 370 (Rhizoprion, type *R. baricnatis*); p. 371 (Squalodon).
 Leidy, J. 1858 C, p. 377. (Colophonodon, type *C. holmesii*).
 1856 K, p. 220. (Macrophoca, type *M. atlantica*).
 1869 A, p. 416.
 Longhi, P. 1899 A, p. 374.
 Lydekker, R. 1887 A, p. 75.
 Meyer, H. 1840 A.
 1841 A.
 1847 A. (Squalodon, Pachyodon.)
 Molin, R. 1869 A, p. 125. (Squalodon, Pachyodon.)
 Müller, J. 1847 C. (Squalodon, syn. of Zeuglodon.)
 1849 A, p. 29.
 Nicholson and Lydekker 1889 A, p. 1306.
 Osborn, H. F. 1898 D, p. 14.
 Owen, R. 1845 B, p. 564. (Phocodon).
 1865 B.
 1866 B, p. 406. (Squalodon, Phocodon.)
 Paquier, V. 1894 A.
 Pictet, F. J. 1858 A, p. 379.
 Probst, J. 1886 A.
 1886 A, p. 106.
 Quenstedt, F. A. 1885 A, p. 118.
 Roger, O. 1896 A, p. 76.
 Steinmann and Döderlein 1890 A, p. 706.
 Trouessart, E. L. 1898 A, p. 1011.
 Van Beneden, P. J. 1861 A.
 1865 A, p. 64.
 Van Beneden and Gervais 1880 A, pp. 426, 519 (Squalodon); p. 451 (Phocodon).
 Weber, M. 1886 A, p. 233.
 Woodward, A. S. 1898 B, p. 272.
 Zittel, K. A. 1893 B, p. 170.
- Squalodon atlanticus Leidy.**
Leidy, J. 1856 K, p. 220. (Macrophoca.)
Cope, E. D. 1867 B, p. 132.
 1867 C, p. 151. (Colophonodon.)
 1869 N, p. 739.
 1875 H, p. 363.
 1890 E, p. 603.
Leidy, J. 1869 A, p. 416, pl. xxviii, figs. 4-7; pl. xxx, fig. 18.
Lydekker, R. 1887 A, p. 77.
Roger, O. 1896 A, p. 77.

AGOROPHIUS Cope. Type *Zeuglodon pygmaeus* Müller.

- Cope, E. D.* 1896 A, p. 139.
 1896 J, p. 141.
 Trouessart, E. L. 1898 A, p. 1069.
- Agorophius pygmaeus (Müller).**
Müller, J. 1849 A, p. 29, pl. xxxiii, figs. 1, 2. (Zeuglodon.)
 Agassiz, L., in *Leidy, J.* 1869 A, p. 420. (Phocodon holmesii.)
Cope, E. D. 1867 C, p. 156. (Doryodon.)
 1868 I, p. 186. (Zeuglodon.)

- Van Beneden and Gervais 1880 A, p. 440.
 Miocene; New Jersey, Maryland.

Squalodon debilis (Leidy).

- Leidy, J.* 1856 N, p. 265. (Phoca.)
 Allen, J. A. 1890 A, p. 473. (Squalodon?)
 Cope, E. D. 1867 C, p. 144.
Leidy, J. 1869 A, p. 415, pl. xxviii, figs. 12, 13. (Phoca.)
 Roger, O. 1896 A, p. 74. (Phoca.)
 Trouessart, E. L. 1898 A, p. 1014.
 Zittel, K. A. 1893 B, p. 684. (Phoca.)
 Eocene; South Carolina.

Squalodon holmesii Leidy.

- Leidy, J.* 1858 C, p. 377. (Colophonodon.)
 Cope, E. D. 1867 C, pp. 144, 153.
 1890 E, p. 603.
Leidy, J. 1869 A, p. 418, pl. xxviii, figs. 15-17; pl. xxix, fig. 9.
 Roger, O. 1896 A, p. 77.
 Trouessart, E. L. 1898 A, p. 1015.
 Eocene; South Carolina.

Squalodon? modestus (Leidy).

- Leidy, J.* 1869 A, p. 415, pl. xxviii, fig. 14. (Phoca.)
 Allen, J. A. 1890 A, p. 474. ("Squalodont.")
 Roger, O. 1896 A, p. 74. (Phoca.)
 Zittel, K. A. 1893 B, p. 684. (Phoca.)
 Eocene; South Carolina.

Squalodon pelagius Leidy.

- Leidy, J.* 1869 A, p. 420, pl. xxix, fig. 1.
 Cope, E. D. 1890 E, p. 615.
 Roger, O. 1896 A, p. 77.
 Trouessart, E. L. 1898 A, p. 1015.
 Eocene; South Carolina.

Squalodon protervus Cope.

- Cope, E. D.* 1867 C, pp. 144, 152 (Cynorca); p. 151, in part (Squalodon).
 1868 I, p. 186. (Cynorca.)
 1890 E, p. 615.
Leidy, J. 1869 A, pp. 384, 423, pl. xxviii, figs. 18, 19.
 Roger, O. 1896 A, p. 77.
 Trouessart, E. L. 1898 A, p. 1015.
 Eocene; South Carolina.
 The original description refers almost wholly to a canine tooth of *Dicotyles*.

Squalodon tiedemani Allen.

- Allen, J. A.* 1887 A, pls. v, vi.
 Trouessart, E. L. 1898 A, p. 1015. (*S. tiedemani*).
 Eocene; South Carolina.

- Cope, E. D.* 1890 E, p. 615. (Squalodon pygmaeus errore.)
 1896 A, p. 139.
 Dames, W. 1894 B. (Zeuglodon.)
 Gervais, P. 1871 A, p. 138. (Squalodon.)
 Gibbes, R. W. 1847 B, p. 8. ("Zeuglodon.")
 Holmes, F. S. 1849 A, p. 197. ("Zeuglodon," "Basilosaurus.")
Leidy, J. 1854 A, p. 8. (Basilosaurus.)
 1869 A, p. 420, pl. xxix, figs. 7, 8. (Squalodon.)
 Lydekker, R. 1892 B, p. 559. (Doryodon.)

- Müller, J. 1851 A, p. 242.
 Roger, O. 1896 A, p. 77. (Squalodon.)
 Trouessart, E. L. 1898 A, p. 1014 (Squalodon); p. 1069 (Agorophius).
 Tuomey, M. 1847 A. ("Zeuglodon.")
 1847 B. ("Zeuglodon.")
 1847 C. ("Zeuglodon.")

- Tuomey, M. 1848, Rept. Geol. S. C., p. 166. ("Zeuglodon.")
 1849, Rept. Geol. S. C., p. 69. ("Zeuglodon.")
 Van Beneden and Gervais 1880 A, p. 441. (Squalodon.)
 Eocene; South Carolina.

GRAPHIODON Leidy. Type *G. vinearius* Leidy.

- Leidy, J. 1870 R, p. 122.
 1873 B, p. 337.
 Trouessart, E. L. 1898 A, p. 1011. (Syn. of Squalodon?)

Graphiodon vinearius Leidy.

- Leidy, J. 1870 R, p. 122.

- Cope, E. D. 1890 E, p. 615. (Squalodon.)
 Leidy, J. 1873 B, p. 337, pl. xxii, fig. 7.
 Roger, O. 1896 A, p. 77. (Squalodon.)
 Trouessart, E. L. 1898 A, p. 1015. (Squalodon?).
 Miocene; Massachusetts.

CETERHINOPS Leidy. Type *C. longifrons* Leidy.

- Leidy, J. 1877 A, p. 230.
 A genus of uncertain position.

Ceterhinops longifrons Leidy.

- Leidy, J. 1877 A, p. 230, pl. xxxiv, fig. 7.
 Tertiary (Phosphate beds); South Carolina.

PLATANISTIDÆ.

- Brandt, J. F. 1874 A, p. 17. (Platanistinae.)
 Cope, E. D. 1869 G, p. 6.
 1890 E, p. 608.
 Flower, W. H. 1867 A, p. 118.
 1868 B, p. 349.
 Flower and Lydekker 1891 A, p. 257.
 Gill, T. 1871 B, p. 123. (Platanistidæ, Rhabdo-
 steidæ.)
 1872 B, pp. 14, 96 (Platanistidæ); p. 15 (Rhab-
 dosteidæ).

- Huxley, T. H. 1872 A, p. 342.
 Lydekker, R. 1893 C, p. 564.
 Nicholson and Lydekker 1899 A, p. 1306.
 Owen, R. 1868 A, p. 282. (Platanista.)
 Paquier, V. 1894 A, p. 11.
 Roger, O. 1896 A, p. 77.
 Zittel, K. A. 1893 B, p. 171.

PLATANISTINÆ.

- Brandt, J. F. 1874 A, p. 17. | Flower, W. H. 1867 A, p. 114.

CHAMPSODELPHIS Gervais. Type *C. macrogenius* Gervais.

- Gervais, P., 1852, Zool. Paléont. Franc., ed. 1, p. 152.
 Brandt, J. F. 1873 A, p. 263.
 1874 A, p. 19.
 Flower and Lydekker 1891 A, p. 259.
 Longhi, P. 1899 A, p. 323.
 Lydekker, R. 1887 A, p. 74.
 Nicholson and Lydekker 1899 A, p. 1306.
 Probst, J. 1886 A, pp. 106, 122.
 Van Beneden and Gervais 1880 A, p. 482.

- Zittel, K. A. 1893 B, p. 171.

Champsodelphis acutidens (Cope).

- Cope, E. D. 1867 C, p. 145. (Priscodelphinus.)
 Brandt, J. F. 1873 A, p. 226. (Priscodelphinus.)
 Leidy, J. 1869 A, p. 433. (Priscodelphinus.)
 Trouessart, E. L. 1898 A, p. 1020.
 Van Beneden and Gervais 1880 A, p. 508.
 Miocene; Maryland.

LOPHOCETUS Cope. Type *Delphinus calvertensis* Harlan.

- Cope, E. D. 1867 C, p. 146.
 1869 G, p. 6.
 1890 E, p. 606.
 Zittel, K. A. 1893 B, p. 173.
 A genus of uncertain position.
Lophocetus calvertensis (Harlan).
 Harlan, R. 1842 D, p. 196, 3 plates. (Delphinus.)
 Brandt, J. F. 1873 A, p. 288.
 Cope, E. D. 1866 H, p. 297. (Pontoporia.)

- Cope, E. D. 1867 C, p. 146.
 1890 E, pp. 606, 615.
 Leidy, J. 1869 A, p. 435.
 Roger, O. 1896 A, p. 79.
 Trouessart, E. L. 1898 A, p. 1022.
 Van Beneden and Gervais 1880 A, p. 512.
 Zittel, K. A. 1893 B, p. 173.
 Miocene; Maryland.

DELPHINODON Leidy. Type *Squalodon mento* Leidy.

- Leidy, J. 1869 A, p. 424.
 Cope, E. D. 1890 E, p. 615.
 Leidy, J. 1869 A, p. 428. (Phocageneus, type *P. venustus* Leidy.)
 Lydekker, R. 1887 A, p. 75. (Syn. of *Squalodon*.)
 Trouessart, E. L. 1898 A, p. 1023.
 Zittel, K. A. 1893 B, p. 170. (Syn. of *Squalodon*.)

Delphinodon mento Cope.

- Cope, E. D. 1867 B, p. 132. (*Squalodon*.)
 1867 C, pp. 151, 152. (*Squalodon*.)
 1890 E, p. 615.
 Leidy, J. 1869 A, p. 424, pl. xxx, figs. 7, 8, 9.
 Roger, O. 1896 A, p. 79.
 Trouessart, E. L. 1898 A, p. 1023.
 Wyman, J. 1850 B, p. 230, figs. 5-7. ("Cetacean.")
 Miocene; Maryland, South Carolina.

Delphinodon venustus (Leidy).

- Leidy, J. 1869 A, p. 426, pl. xxix, fig. 10. (Phocageneus.)
 Agassiz, L. in Wyman J. 1850 B, p. 230, fig. 4. ("Phocodon.")
 Cope, E. D. 1867 C, p. 152. (*Squalodon mento*, in part.)

PRISCODELPHINUS Leidy. Type *P. harlani* Leidy.

- Leidy, J. 1861 G, p. 326.
 Cope, E. D. 1868 I, pp. 186, 187 (Priscodelphinus); pp. 186, 190 (Tretosphyra, type *T. gabbii*.)
 1869 G, p. 7. (Tretosphyra.)
 1890 E, pp. 604, 615.
 Leidy, J. 1869 A, p. 433 (Priscodelphinus); p. 434 (Tretosphyra.)
 Trouessart, E. L. 1898 A, p. 1023.
 Van Beneden and Gervais 1880 A, pp. 493, 510.
 Zittel, K. A. 1893 B, p. 172.

Priscodelphinus gabbii Cope.

- Cope, E. D. 1868 I, p. 191. (Delphinapterus.)
 Brandt, J. F. 1873 A, p. 287. (Tretosphyra.)
 Cope, E. D. 1869 G, pp. 6, 7, 8. (Tretosphyra.)
 1890 E, p. 615.
 Leidy, J. 1869 A, p. 434. (Tretosphyra.)
 Roger, O. 1896 A, p. 78.
 Trouessart, E. L. 1898 A, p. 1024.
 Van Beneden and Gervais 1880 A, p. 512. (Tretosphyra.)
 Miocene; Maryland.

Priscodelphinus grandævus Leidy.

- Leidy, J. 1861 G, p. 327. (Priscodelphinus.)
 Brandt, J. F. 1873 A, p. 287. (Tretosphyra.)
 Cope, E. D. 1867 C, p. 144.
 1868 I, p. 191. (Delphinapterus.)
 1869 G, pp. 7, 9. (Tretosphyra.)
 1890 E, p. 604, figs. 2, 3.
 Leidy, J. 1863 C, p. 377.
 1864 A, p. 8.
 1869 A, p. 434. (Tretosphyra.)
 Roger, O. 1896 A, p. 78.
 Trouessart, E. L. 1898 A, p. 1024.
 Van Beneden and Gervais 1880 A, p. 511. (Tretosphyra.)

- Cope, E. D. 1890 E, p. 615.
 Roger, O. 1896 A, p. 79.
 Trouessart, E. L. 1898 A, p. 1023.
 Miocene; Virginia.

Delphinodon leidy nom. nov.

- Allen, J. A. 1890 A, p. 473. (*D. wymani*.)
 Cope, E. D. 1867 C, pp. 151, 152. (*Squalodon wymanii*, in part.)
 1890 E, p. 615. (*D. wymanii*.)
 Leidy, J. 1856 N, p. 265. (*Phoca wymani*, in part.)
 1869 A, p. 425, pl. xxx, figs. 10-12. (*D. wymani*.)
 Roger, O. 1896 A, p. 79. (*D. wymanii*.)
 Trouessart, E. L. 1898 A, p. 1023. (*D. wymanii*.)
 Wyman, J. 1850 B, p. 229, in part? ("Seal.")
 Miocene; Maryland.
 The name *Delphinodon leidy* is intended to replace *D. wymani* Leidy, which is the same, in part, as *Squalodon wymanii* Cope 1867 C, p. 152, but not same as *S. wymani* Cope 1867 B, p. 132. The type of *D. leidy* is Leidy, J. 1869 A, pl. xxx, fig. 12.
 See references under *Phoca wymani*.

- Zittel, K. A. 1893 B, p. 173, fig. 134.
 Miocene; New Jersey.

Priscodelphinus harlani Leidy.

- Leidy, J. 1861 G, p. 326.
 Brandt, J. F. 1873 A, p. 286.
 Cope, E. D. 1867 C, p. 144.
 1868 I, p. 188.
 1869 N, p. 739.
 1875 H, p. 363.
 1890 E, p. 615. (Syn. of *P. grandævus*.)
 Harlan, R. 1825 B, p. 232. ("Plesiosaurus.")
 1834 B, p. 77. ("Plesiosaurus.")
 1835 B, p. 821. ("Plesiosaurus.")
 Leidy, J. 1863 C, p. 377.
 1864 A, p. 8.
 1865 A, p. 1.
 1869 A, p. 433.
 Roger, O. 1896 A, p. 78. (Syn. of *P. grandævus*.)
 Trouessart, E. L. 1898 A, p. 1024.
 Miocene; New Jersey.

Priscodelphinus lacertosus Cope.

- Cope, E. D. 1868 I, p. 189 (Tretosphyra); p. 190 (Delphinapterus lacertosus, *D. hawkinsii*.)
 1868 I, p. 190. (Delphinapterus, Tretosphyra.)
 1869 G, p. 7. (Tretosphyra.)
 1869 N, p. 739. (Delphinapterus lacertosus, *D. hawkinsii*.)
 1875 H, p. 363.
 1890 E, p. 615.
 Leidy, J. 1869 A, p. 434. (Tretosphyra.)
 Roger, O. 1896 A, p. 78.
 Trouessart, E. L. 1898 A, p. 1024.
 Van Beneden and Gervais 1880 A, p. 512.
 Miocene; Maryland.

Priscodelphinus ruschenbergieri Cope.Cope, *E. D.* 1868 I, p. 189. (Delphinapterus.)

Brandt, J. F. 1873 A, p. 287. (Tretosphyra.)

Cope, *E. D.* 1869 G, pp. 7, 9. (Tretosphyra.)
1890 E, p. 615.

Ledy, J. 1869 A, p. 435. (Tretosphyra.)

Roger, O. 1896 A, p. 78.

Trouessart, E. L. 1898 A, p. 1024.

Van Beneden and Gervais 1880 A, p. 512. (Tretosphyra.)

Miocene; Maryland.

Priscodelphinus ursus Cope.Cope, *E. D.* 1869 G, pp. 7, 8. (Tretosphyra.)

Brandt, J. F. 1873 A, p. 287. (Tretosphyra.)

Cope, *E. D.* 1875 H, p. 363.

1890 E, p. 615.

Ledy, J. 1869 A, p. 435. (Tretosphyra.)

Roger, O. 1896 A, p. 78.

Trouessart, E. L. 1898 A, p. 1024.

Van Beneden and Gervais 1880 A, p. 512.

Miocene; New Jersey, Maryland.

Zarhachis Cope. Type *Z. flagellator* Cope.Cope, *E. D.* 1868 I, pp. 186, 189.

1869 G, p. 9.

1890 E, p. 604.

Ledy, J. H. 1869 A, p. 435.

Trouessart, E. L. 1898 A, p. 1024.

Zittel, K. A. 1893 B, p. 172.

Zarhachis flagellator Cope.Cope, *E. D.* 1868 I, p. 189, in part.

Brandt, J. F. 1873 A, p. 287.

Cope, *E. D.* 1869 G, p. 9.

1890 E, p. 615.

Ledy, J. 1869 A, p. 435.

Roger, O. 1896 A, p. 78.

Trouessart, E. L. 1898 A, p. 1024.

Van Beneden and Gervais 1880 A, p. 512

Miocene; Maryland.

Zarhachis tysonii Cope.Cope, *E. D.* 1869 G, p. 9.

Brandt, J. F. 1873 A, p. 288.

Cope, *E. D.* 1868 I, p. 189. (*Z. flagellator*, in part.)

1890 E, p. 615.

Ledy, J. 1869 A, p. 435.

Roger, O. 1896 A, p. 78.

Trouessart, E. L. 1898 A, p. 1025.

Van Beneden and Gervais 1880 A, p. 512.

Miocene; Maryland.

Zarhachis velox Cope.Cope, *E. D.* 1869 G, pp. 9, 10.

Brandt, J. F. 1873 A, p. 288.

Cope, *E. D.* 1868 I, p. 189. (*Z. flagellator*, in part.)

1875 H, p. 363.

1890 E, p. 615.

Ledy, J. 1869 A, p. 615.

Roger, O. 1896 A, p. 78.

Trouessart, E. L. 1898 A, p. 1025.

Van Beneden and Gervais 1880 A, p. 512.

Miocene; Maryland.

Ixacanthus Cope. Type *I. celospondylus* Cope.Cope, *E. D.* 1868 G, p. 159.

Brandt, J. F. 1873 A, p. 286.

Cope, *E. D.* 1868 I, p. 187.1875 H, p. 364. (*Belosphyra*, type *B. spinosus*.)

1890 E, pp. 604, 615.

Ledy, J. 1869 A, p. 435.

Trouessart, E. L. 1898 A, p. 1025.

Zittel, K. A. 1893 B, p. 172.

Ixacanthus atropius Cope.Cope, *E. D.* 1868 I, p. 188. (*Priscodelphinus*.)Brandt, J. F. 1873 A, p. 286. (*Priscodelphinus*.)Cope, *E. D.* 1869 G, p. 6. (*Priscodelphinus*.)1875 H, p. 364. (*Belosphyra*.)

1890 E, p. 615.

Ledy, J. 1869 A, p. 433. (*Priscodelphinus*.)

Roger, O. 1896 A, p. 78.

Trouessart, E. L. 1898 A, p. 1025.

Van Beneden and Gervais 1880 A, p. 511. (*Priscodelphinus*.)

Miocene; Maryland.

Ixacanthus celospondylus Cope.Cope, *E. D.* 1868 G, p. 159.

Brandt, J. F. 1873 A, p. 288.

Cope, *E. D.* 1868 I, p. 187.

1869 N, p. 739.

1875 H, p. 364.

1890 E, p. 604.

Ledy, J. 1869 A, p. 435.

Trouessart, E. L. 1898 A, p. 1025.

Van Beneden and Gervais 1880 A, p. 518.

Miocene; Maryland, New Jersey?

Ixacanthus conradi (Ledy).Ledy, J. 1852 B, p. 35. (*Delphinus*.)Brandt, J. F. 1873 A, p. 286. (*Priscodelphinus*.)Cope, *E. D.* 1868 I, p. 188. (*Priscodelphinus*.)1875 H, p. 364. (*Belosphyra*.)

1890 E, p. 615.

Ledy, J. 1869 A, p. 438. (*Priscodelphinus*.)

Roger, O. 1896 A, p. 79.

Trouessart, E. L. 1898 A, p. 1025 (*I. celospondylus*); p. 1032 (*Delphinus conradi*).Van Beneden and Gervais 1880 A, p. 511. (*Priscodelphinus*.)

Miocene; Virginia, Maryland.

Ixacanthus spinosus Cope.Cope, *E. D.* 1868 I, p. 187. (*Priscodelphinus*.)Brandt, J. F. 1873 A, p. 286. (*Priscodelphinus*.)Cope, *E. D.* 1875 H, p. 364. (*Belosphyra*.)

1890 E, p. 603, fig. 1; p. 615.

Ledy, J. 1869 A, p. 433. (*Priscodelphinus*.)

Roger, O. 1896 A, p. 78.

Trouessart, E. L. 1898 A, p. 1025.

Van Beneden and Gervais 1880 A, p. 511. (*Priscodelphinus*.)

Miocene; Maryland.

***Ixacanthus stenus* Cope.**

- Cope*, E. D. 1868 I, p. 188. (Priscodelphinus.)
 Brandt, J. F. 1873 A, p. 286.
Cope, E. D. 1875 H, p. 364. (Belosphys.)
 1890 E, p. 615.

- Ledy*, J. 1869 A, p. 433. (Priscodelphinus.)
 Roger, O. 1896 A, p. 79.
 Trouessart, E. L. 1896 A, p. 1025.
 Van Beneden and Gervais 1890 A, p. 511.
 Miocene; Maryland.

AGABELUS Cope. Type *A. porcatus* Cope.

- Cope*, E. D. 1875 H, p. 363.
 1890 E, pp. 604, 615.
 Flower and Lydekker 1891 A, p. 260.
 Trouessart, E. L. 1896 A, p. 1025.
 Zittel, K. A. 1893 B, p. 174.

***Agabelus porcatus* Cope.**

- Cope*, E. D. 1875 H, p. 363.
 1890 E, pp. 604, 615.
 Roger, O. 1896 A, p. 79.
 Trouessart, E. L. 1896 A, p. 1025.
 Miocene; New Jersey.

RHABDOSTEUS Cope. Type *R. latiradix* Cope.

- Cope*, E. D. 1867 B, p. 132.
 Brandt, J. F. 1874 A, p. 13.
Cope, E. D. 1867 C, p. 145.
 1890 E, p. 604.
Ledy, J. 1869 A, p. 436.
 Trouessart, E. L. 1896 A, p. 1025.
 Van Beneden and Gervais 1890 A, p. 513.
 Zittel, K. A. 1893 B, p. 174.

***Rhabdosteus latiradix* Cope.**

- Cope*, E. D. 1867 B, p. 132.
 Brandt, J. F. 1873 A, p. 288.
Cope, E. D. 1867 C, p. 145.
 1890 E, pp. 605, 607, fig. 4; p. 615.
Ledy, J. 1869 A, p. 435.
 Roger, O. 1896 A, p. 79.
 Trouessart, E. L. 1896 A, p. 1025.
 Miocene; Maryland.

CETOPHIS Cope. Type *C. heteroclitus* Cope.

- Cope*, E. D. 1868 I, p. 184.
 1890 E, p. 604.
 Trouessart, E. L. 1896 A, p. 1025.
 Zittel, K. A. 1893 B, p. 173.
 A genus of doubtful position.

***Cetophis heteroclitus* Cope.**

- Cope*, E. D. 1868 I, p. 185.
 1890 E, pp. 608, 606.
Ledy, J. 1869 A, p. 431.
 Roger, O. 1896 A, p. 79.
 Trouessart, E. L. 1896 A, p. 1025.
 Miocene; Maryland.

DELPHINIDÆ.

- Albrecht, P. 1886 A, p. 344.
 Brandt, J. F. 1873 A, p. 227.
Cope, E. D. 1868 I, p. 186.
 1889 C, p. 207.
 1890 E, p. 609.
 Cuvier, G. 1834 A, viii, pp. 75-170, pls. ccxxii, ccxxiv.
 Duvernoy, G. L. 1851 A. ("Dauphinus.")
 Flower, W. H. 1867 A, p. 113.
 1868 B, p. 349.
 1883 B.
 1883 D, p. 396.
 1885 A, p. 349.
 Flower and Lydekker 1891 A, p. 260.

- Gill, T. 1871 B, p. 123.
 1872 B, pp. 14, 94.
 Gray, J. E. 1866 A, p. 228.
 Huxley, T. H. 1872 A, p. 342.
 Lydekker, R. 1887 A, p. 78.
 Nicholson and Lydekker 1889 A, p. 1307.
 Osborn, H. F. 1888 F, p. 1075.
 Owen, R. 1866 B, p. 424.
 Roger, O. 1896 A, p. 79.
 Trouessart, E. L. 1896 A, p. 1025.
 True, F. W. 1889 A.
 Weyhe, — 1875 A, p. 100.
 Zittel, K. A. 1893 B, p. 174.

DELPHININÆ.

- Brandt, J. F. 1873 A, p. 243.
 Flower, W. H. 1867 A, p. 113.
 Gill, T. 1872 B, p. 15. (Delphininæ, Globiocephalinæ.)

- True, F. W. 1889 A, pp. 10, 13, 15.

DELPHINUS Linn. Type *D. delphis* Linn.

- Linnaeus*, C., 1758, Syst. Nat., ed. 10, i, p. 77.
 Brandt, J. F. 1873 A, p. 244.
Cope, E. D. 1868 I, p. 186.

- Duvernoy, G. L. 1851 A. ("Dauphin.")
 Flower, W. H. 1883 B, pp. 500, 511.
 1883 D, p. 399.

Flower and Lydekker 1891 A, p. 271.
 Gervais, P. 1859 A, p. 301.
 Gray, J. E. 1866 A, p. 239.
 Nicholson and Lydekker 1889 A, p. 1307.
 Pictet, F. J. 1853 A, p. 381.
 Trouessart, E. L. 1898 A, p. 1031.
 True, F. W. 1889 A, pp. 44, 160.
 Zittel, K. A. 1893 B, p. 175.

Delphinus occiduus Leidy.

Leidy, J. 1868 E, p. 197.
 Brandt, J. F. 1873 A, p. 286.

Cope, E. D. 1890 E, p. 616.
 Leidy, J. 1869 A, p. 431.
 1871 C, p. 365.
 Roger, O. 1896 A, p. 79.
 Tomes, C. S. 1898 A, p. 376.
 Trouessart, E. L. 1898 A, p. 1031.
 Miocene; California.

Delphinus sp. indet.

Wyman, J. 1850 B, p. 231, figs. 5-7.
 Leidy, J. 1869 A, p. 432.

DELPHINAPTERINÆ.

Gill, T. 1871 B, p. 124.
 1872 B, p. 15.

True, F. W. 1889 A, pp. 10, 11.

DELPHINAPTERUS Lacépède. Type *D. leucas* Pall.

Lacépède, B. G. E., 1804, Hist. Nat. Cét., p. xlii.
 Brandt, J. F. 1873 A, p. 234.
 Cope, E. D. 1868 I, p. 186.
 1890 E, p. 609.
 Dawson, J. W. 1883 A, p. 201. (Beluga.)
 Flower, W. H. 1883 B, p. 505.
 1889 A, p. 146.
 Flower and Lydekker 1891 A, p. 262.
 Gray, J. E., 1828, Spicilegia Zool., i, p. 2. (Beluga.)
 1866 A, p. 307.
 Lydekker, R. 1887 A, p. 78.
 Probst, J. 1886 A, p. 129. (Beluga.)
 True, F. W. 1889 A, p. 146.
 Van Beneden and Gervais 1880 A, p. 531. (Beluga.)
 Zittel, K. A. 1893 B, p. 176. (Beluga.)

Delphinapterus leucas Pall.

Cope, E. D. 1890 E, pl. xxi.
 Dawson, J. W. 1883 A, p. 201. (Beluga catodon.)
 1896 B. (B. catodon.)
 Flower and Lydekker 1891 A, p. 262, fig. 91.
 Owen, R. 1868 A, p. 231.
 Trouessart, E. L. 1898 A, p. 1050.
 True, F. W. 1889 A, p. 187, pl. xlv, figs. 1, 2.
 Recent; Arctic seas. Pleistocene; Ontario.

Delphinapterus orcina Cope.

Cope, E. D. 1875 V, p. 49.
 1890 E, p. 610.
 Roger, O. 1896 A, p. 80. (Beluga.)
 Trouessart, E. L. 1898 A, p. 1051.
 Miocene; North Carolina.

Delphinapterus vermontana (Thomp.).

Thompson, Z. 1850 A, p. 257, figs. 1-13. (Delphinus.)
 Amer. Naturalist 1871 A. (Beluga.)
 Brandt, J. F. 1873 A, p. 290. (Beluga.)
 Cope, E. D. 1867 C, p. 144. (Beluga.)
 1890 E, p. 610.
 Dawson, J. W. 1878 A, supp., p. 23. (Beluga.)
 1883 A, p. 201. (Beluga.)
 Gilpin B. 1873 A. (Beluga vermontana?)
 Honeyman, D. 1874 A. (Beluga.)
 1874 B. (Beluga.)
 Leidy, J. 1869 A, p. 436. (Beluga.)
 Logan, W. E. 1863 A, p. 919. (Beluga.)
 Thompson, Z. 1853 A, p. 15, figs. 1-13. (Beluga.)
 1859 A, p. 299. (Beluga.)
 Trouessart, E. L. 1898 A, p. 1051.
 Pleistocene; Vermont, Quebec.

MONODON Linn. Type *M. monoceros* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 75.
 Berthold, A. A. 1850 A.
 Brandt, J. F. 1873 A, p. 231.
 Clark, J. W. 1871 A.
 Flower, W. H. 1883 B.
 1883 D.
 Flower and Lydekker 1891 A, p. 260.
 Gray, J. E. 1866 A, p. 310.
 Jaeger, G. 1851 A.
 Leboucq, H. 1887 A, p. 203.
 Lydekker, R. 1887 A, p. 78.
 Nicholson and Lydekker 1889 A, p. 1307.
 Owen, R. 1845 B, p. 347.
 1868 A, p. 279, fig. 220.
 Pictet, F. J. 1853 A, p. 384.
 Smith, J. 1895 A, p. 331.
 Van Beneden and Gervais 1880 A, p. 523.
 Zittel, K. A. 1893 B, p. 176.

Monodon monoceros Linn.

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 75.

Barton, B. S. 1805 A, p. 98. ("Monodon.")
 Brandt, J. F. 1873 A, p. 232.
 Clark, J. W. 1871 A.
 Flower, W. H. 1883 D, p. 398, fig. 49.
 Flower and Lydekker 1891 A, p. 261, fig. 90.
 Gray, J. E. 1866 A, p. 311.
 Jaeger, G. 1857 A, p. 571.
 Lydekker, R. 1887 A, p. 78.
 Nicholson and Lydekker 1889 A, p. 1307.
 Owen, R. 1845 B, p. 347, pl. lxxxvii. ("Monodon.")
 Tomes, C. S. 1898 A, p. 381, fig. 174.
 Trouessart, E. L. 1898 A, p. 1052.
 Turner, H. N. 1872 A.
 1873 A.
 1876 A.
 Van Beneden and Gervais 1880 A, p. 523, pl. xlv, figs. 6-9; pl. xlv.
 Zittel, K. A. 1893 B, p. 176.
 Recent; Arctic seas. Pleistocene; Alaska.

PHYSETERIDÆ.

- Cope, E. D. 1889 C, p. 207.
 1890 E, p. 606.
 1895 A, p. 137. (Chonēziphiidæ.)
 Duvernoy, G. L. 1861 A. ("Les cachalots.")
 Flower, W. H. 1867 A, p. 113.
 1868 B, p. 345.
 1883 D, p. 335.
 Flower and Lydekker 1891 A, p. 247.
 Gill, T. 1871 B, p. 123.
 1872 B, pp. 15, 96. (Physeteridæ, Ziphiidæ.)

- Gray, J. E. 1866 A, p. 195. (Catodontidæ.)
 Huxley, T. H. 1872 A, p. 340.
 Lydekker, R. 1887 A, p. 53.
 Nicholson and Lydekker 1889 A, p. 1305.
 Pouchet and Beauregard 1889 A.
 Roger, O. 1896 A, p. 80.
 Van Beneden, P. J. 1877 B. (Physeterula.)
 Zittel, K. A. 1893 B, p. 176.

PHYSETERINÆ.

- Brandt, J. F. 1873 A, p. 205.
 Flower, W. H. 1867 A, p. 114.
 1883 D, p. 396.

- Gill, T. 1871 B, p. 124.
 1872 B, pp. 15, 96.
 Zittel, K. A. 1893 B, p. 177.

PHYSETER Linn. Type *P. macrocephalus* Linn.

- Linnaeus*, C., 1758, Syst. Nat., ed. 10, 1, p. 76.
 Brandt, J. F. 1873 A, p. 205.
 Cope, E. D. 1890 E, p. 606.
 Flower, W. H. 1868 B.
 1885 A.
 Flower and Lydekker 1891 A, p. 248.
 Gray, J. E. 1866 A, p. 210.
 Harlan, R. 1834 B, pp. 74, 75. (Megistosauros,
 Nephrosteon, synonyms of Physeter.)
 1835 A, p. 76. (Megistosauros.)
 1835 B, p. 279. (Megistosauros, Nephrosteon.)
 Huxley, T. H. 1872 A, p. 340.
 Leidy, J. 1856 L, p. 255. (Orycterocetus, type *O. quadratidens*.)
 1857 A, p. 271. (Orycterocetus.)
 1869 A, p. 436 (Orycterocetus); p. 444 (Physeter.)
 1876 A, p. 176. (Dinoziphius.)
 Owen, R. 1845 B, p. 353.
 Probst, J. 1886 A.
 Van Beneden and Gervais 1880 A, p. 303 (Physeter); p. 344 (Dinoziphius).
 Zittel, K. A. 1893 B, p. 177.

Physeter carolinensis (Leidy).

- Leidy*, J. 1877 A, p. 216, pl. xxxiv, fig. 6. (Dinoziphius.)
 Cope, E. D. 1890 E, p. 608. (Hoplocetus; may not refer to *P. carolinensis*.)

Physeter macrocephalus Linn.

- Linnaeus*, C., 1758, Syst. Nat., ed. 10, 1, p. 76.
 Flower, W. H. 1868 B, pls. lv-lxi.
 Gibbs, R. W. 1860 B. ("Physeter.")

- Gray, J. E. 1866 A, p. 212. (Physeter turidæ.)
 Harlan, R. 1828 A, p. 186.
 1835 A, p. 76.
 1835 B, p. 279. (Megistosauros and Nephrosteon = *Physeter macrocephalus*.)
 Jaeger, G. 1857 A, p. 573.
 Leidy, J. 1869 A, p. 444.
 Owen, R. 1845 B, p. 353, pls. lxxxix, lxxxix a.
 1868 A, p. 281.
 Rafinesque, C. S., 1833, Atlantic Journal, p. 12. ("Nephrosteon.")
 Roger, O. 1896 A, p. 80.
 Tomes, C. S. 1898 A, p. 378.
 Trouessart, E. L. 1898 A, p. 1056.
 Recent in warm seas: Pleistocene?; Louisiana.
 "A doubtful fossil."

Physeter vetus (Leidy).

- Leidy*, J. 1853 C, p. 378. (*P. antiquus*, preoccupied by Gervais.)
 Brandt, J. F. 1873 A, p. 289. (Catodon.)
 Cope, E. D. 1869 N, p. 739. (*P. antiquus*.)
 1875 V, p. 50.
 1890 E, p. 615.
 Emmons, E. 1858 B, p. 212, fig. 34. (*P. antiquus*.)
 Gibbs, R. W. 1847 B, p. 11. (*P. macrocephalus*?).
 1850 B. (Catodon.)
 Leidy, J. 1860 B, p. 117, pl. xxiv, figs. 8, 9. (*P. antiquus*.)
 1869 A, p. 436. (Catodon.)
 Roger, O. 1896 A, p. 80.
 Trouessart, E. L. 1898 A, p. 1055.
 Pleistocene; South Carolina. Miocene; North Carolina, Virginia, New Jersey.

ORYCTEROCETUS Leidy. Type *O. quadratidens* Leidy.

- Leidy*, J. 1853 C, p. 378.
 Cope, E. D. 1890 E, p. 607. (Syn. of *Physeter*.)
 Leidy, J. 1857 A, p. 271.
 1869 A, p. 436.
 Trouessart, E. L. 1898 A, p. 1055. (Syn. of *Physeter*.)
 Zittel, K. A. 1893 B, p. 177. (Syn. of *Physeter*.)

Orycterocetus cornutidens Leidy.

- Leidy*, J. 1856 L, p. 256, in part.

- Brandt, J. F. 1873 A, p. 289.
 Cope E. D. 1867 C, p. 144. (*O. crocodilinus*.)
 1875 V, p. 50.
 1890 E, p. 615. (*Physeter*.)
 Emmons, E. 1858 B, p. 211, fig. 33.
 Leidy, J. 1857 A, p. 271.
 1869 A, p. 437.
 Roger, O. 1896 A, p. 80. (*Physeter*.)
 Trouessart, E. L. 1898 A, p. 1055. (*Physeter*.)
 Miocene; North Carolina, Maryland.

Orycterocetus quadratidens Leidy.

Leidy, J. 1853 C, p. 378.

Brandt, J. F. 1873 A, p. 239.

Cope, E. D. 1875 V, p. 60.

1890 E, p. 615. (Physeter.)

Emmons, E. 1858 B, p. 210, fig. 32.

Leidy, J. 1856 L, p. 255. (O. cornutidens, in part.)

1857 A, p. 271.

1869 A, p. 436, pl. xxx, figs. 16, 17.

Roger, O. 1896 A, p. 81. (Physeter.)

Trouessart, E. L. 1898 A, p. 1055. (Physeter.)

Miocene; Virginia, North Carolina.

Hypocetus Lydekker. Type *Mesocetus poucheti* Moreno.

Lydekker, R. 1893 D, p. 7 (Hypocetus); p. 8 (Paracetus).

Ameghino, F. 1894 A, p. 437. (Diaphorocetus, to replace *Mesocetus* Moreno, preoccupied.)

Cope, E. D. 1895 A, p. 135. (Paracetus.)

Lydekker, R. 1896 B, p. 68.

Moreno, F. P. 1892 A, p. 395, pl. x. (*Mesocetus*, type *M. poucheti*; not *Mesocetus* of Van Beneden.)

Trouessart, E. L. 1898 A, p. 1052. (Diaphorocetus.)

Hypocetus mediatlanticus (Cope).

Cope, E. D. 1895 A, p. 135. (Paracetus.)

Roger, O. 1896 A, 81. (Paracetus.)

Trouessart, E. L. 1898 A, p. 1053. (Diaphorocetus.)

Miocene; Maryland.

Hoplocetus Gervais. Type *H. crassidens* Gervais.

Gervais, P. 1852, Zool. Paléont. Franc., ed. 1, p. 26.

Cope, E. D. 1890 E, p. 607.

Flower and Lydekker 1891 A, p. 251.

Leidy, J. 1869 A, p. 438.

Lydekker, R. 1887 A, p. 60.

Owen, R. 1846 B, p. 536. (*Balenodon*, type *B. physaloides*; may not be identical genus.)

Pictet, F. J. 1853 A, p. 388.

Probst, J. 1886 A, p. 106.

Van Beneden and Gervais 1880 A, p. 239.

Zittel, K. A. 1893 B, p. 177.

Hoplocetus obesus Leidy.

Leidy, J. 1868 E, p. 196.

Brandt, J. F. 1873 A, p. 290.

Cope, E. D. 1890 E, p. 608 (*H. carolinensis*); p. 615 (*H. obesus*).

Leidy, J. 1869 A, p. 438, pl. xxx, figs. 13-15.

Trouessart, E. L. 1898 A, p. 1054.

Miocene; California.

Professor Cope's name, *H. carolinensis*, more probably refers to *Physeter carolinensis*; or it may be due to a confusion of the two names.**Ontocetus** Leidy. Type *O. emmonsii* Leidy.

Leidy, J. 1859 G, p. 162.

1869 A, p. 440.

A genus of doubtful position.

Ontocetus emmonsii Leidy.

Leidy, J. 1859 G, p. 162.

Brandt, J. F. 1873 A, p. 290.

Cope, E. D. 1867 C, p. 144.

1875 V, p. 51.

Emmons, E. 1860 A, p. 219.

Leidy, J. 1869 A, p. 440.

Trouessart, E. L. 1898 A, p. 1055. (Hoplocetus.)

Miocene; North Carolina.

ZIPHIINÆ.

Brandt, J. F. 1873 A, p. 209.

Flower, W. H. 1867 A, p. 114.

1872 A.

1883 D, p. 396.

Gill, T. 1872 B, p. 15.

Flower and Lydekker 1891 A, p. 251.

Gervais, P. 1850 A. (Ziphioides.)

Gervais, P. 1859 A, pp. 285, 291. ("Ziphidés.")

Lydekker R. 1887 A, p. 63.

Owen, R. 1889 A. (Ziphius.)

Probst, J. 1886 A, p. 108. (Ziphioides.)

Roger, O. 1896 A, p. 81.

Zittel, K. A. 1893 B, p. 178.

Choneziphius Duvernoy. Type *Ziphius planirostris* Cuv.

Duvernoy, G. L. 1851 A, p. 61.

Brandt, J. F. 1873 A, p. 218.

Cope, E. D. 1890 E, pp. 607, 608, part.

Flower and Lydekker 1891 A, p. 257.

Gervais, P. 1859 A, p. 288.

Leidy, J. 1877 A, p. 218.

Lydekker, R. 1887 A, p. 64.

Owen, R. 1889 A, p. 35.

Pictet, F. J. 1853 A, p. 385.

Trouessart, E. L. 1898 A, p. 1059, part.

Van Beneden and Gervais 1880 A, p. 413.

Zittel, K. A. 1893 B, p. 178.

Choneziphius coslops (Leidy).Leidy, J. 1876 A, p. 81. (*Eboroziphius*.)

Cope, E. D. 1890 E, p. 616.

Leidy, J. 1877 A, p. 224, pl. xxx, fig. 5; pl. xxxi, fig. 3. (*Eboroziphius*.)

Roger, O. 1896 A, p. 82.
 Trouessart, E. L. 1898 A, p. 1060.
 Tertiary (Phosphate beds); South Carolina.

Choneziphium liops Leidy.

Leidy, J. 1876 A, p. 81.
 Cope, E. D. 1890 E, p. 616.
 Leidy, J. 1877 A, p. 222, pl. xxx, fig. 1; pl. xxxi, fig. 2.
 Roger, O. 1896 A, p. 82.
 Trouessart, E. L. 1898 A, p. 1060.
 Tertiary (Phosphate beds); South Carolina.

Choneziphium trachops Leidy.

Leidy, J. 1876 A, p. 81.
 Cope, E. D. 1890 E, pp. 608, 615.
 Leidy, J. 1877 A, p. 218, pl. xxx, fig. 2; pl. xxxi, fig. 1.
 Roger, O. 1896 A, p. 82.
 Trouessart, E. L. 1898 A, p. 1060.
 Tertiary (Phosphate beds); South Carolina.

PROROZIPHIUS Leidy. Type *P. macrops* Leidy.

Leidy, J. 1876 E, p. 87.
 1877 A, p. 227.
 Trouessart, E. L. 1898 A, p. 1060. (Syn. of *Choneziphium*.)

Proroziphium chonops Leidy.

Leidy, J. 1876 F, p. 114.
 Cope, E. D. 1890 E, p. 616. (*Choneziphium*.)
 Leidy, J. 1877 A, p. 229, pl. xxxii, figs. 3, 4.
 Roger, O. 1896 A, p. 82. (*Choneziphium*.)

Trouessart, E. L. 1898 A, p. 1060. (*Choneziphium*.)
 Tertiary (Phosphate beds); South Carolina.

Proroziphium macrops Leidy.

Leidy, J. 1876 E, p. 87.
 Cope, E. D. 1890 E, p. 616. (*Choneziphium*.)
 Leidy, J. 1877 A, p. 227, pl. xxxii, figs. 1, 2.
 Roger, O. 1896 A, p. 82. (*Choneziphium*.)
 Trouessart, E. L. 1898 A, p. 1060. (*Choneziphium*.)
 Tertiary (Phosphate beds); South Carolina.

PELYCORHAMPHUS Cope. Type *P. pertortus* Cope.

Cope, E. D. 1896 A, p. 137.
Pelycorhamphus pertortus Cope.
 Cope, E. D. 1896 A, p. 137.

Trouessart, E. L. 1898 A, p. 1057.
 Miocene. Locality unknown.

ANOPLONASSA Cope. Type *A. forcipata* Cope.

Cope, E. D. 1869 E, p. 189.
 1869 O.
 1890 F, p. 700.
 1896 A, p. 138.
 Trouessart, E. L. 1898 A, pp. 1003, 1057.
 Zittel, K. A. 1893 B, p. 179.

Anoplonassa forcipata Cope.

Cope, E. D. 1869 E, p. 189, pl. v, fig. 5.

Brandt, J. F. 1873 A, p. 289.
 Cope, E. D. 1869 O.
 1890 F, p. 700, fig. 2.
 Leidy, J. 1869 A, p. 436.
 Roger, O. 1896 A, p. 82.
 Trouessart, E. L. 1898 A, p. 103.
 Van Beneden and Gervais 1880 A, p. 386, text figure.
 Tertiary (Phosphate beds); South Carolina.

MESOPLONDON Gervais. Type *Delphinus sowerbensis*.

Gervais, P. 1850 A, p. 16.
 Brandt, J. F. 1873 A, p. 220. (*Mesoödon*.)
 Cope, E. D. 1890 E, p. 607.
 Flower, W. H. 1872 A p. 209.
 Flower and Lydekker 1891 A, p. 254.
 Forbes, H. O. 1893 A.
 Gervais, P. 1850 A, p. 16. (*Dioplonodon*.)
 1859 A, p. 229 (*Dioplonodon*); p. 290 (*Mesoplonodon*.)
 Huxley, T. H. 1864 A, p. 388. (*Micropteron*; *Belemnoziphius*, type *B. compressus*.)
 Leidy, J. 1876 A, p. 81. (*Belemnoziphius*.)
 1877 A, p. 226. (*Dioplonodon*.)
 Owen, R. 1889 A, p. 38. (*Belemnoziphius*.)
 Probst, J. 1886 A, p. 113.
 Trouessart, E. L. 1898 A, p. 1063.

Van Beneden and Gervais 1880 A, p. 392 (*Mesoplonodon*); pp. 403, 419 (*Dioplonodon*.)
 Zittel, K. A. 1893 B, p. 179. (*Mesoplonodon*, *Dioplonodon*.)

Mesoplonodon prorops (Leidy).

Leidy, J. 1876 A, p. 81. (*Belemnoziphius*.)
 Cope, E. D. 1890 E, p. 616.
 Leidy, J. 1877 A, p. 226, pl. xxx, figs. 3, 4. (*Dioplonodon*.)
 Roger, O. 1896 A, p. 82.
 Trouessart, E. L. 1898 A, p. 1065.
 Van Beneden, P. J. 1880 A. (*Ziphius longirostris*; =? *M. prorops*.)
 Tertiary (Phosphate beds); South Carolina.

Suborder MYSTICETE.

- Brandt, J. F. 1873 A, p. 17. (Balænoidea.)
 Cope, E. D. 1889 R, p. 876. (Mystacoceti.)
 1890 E, p. 610. (Mysticete.)
 1898 B, p. 109. (Mysticete.)
 Flower, W. H. 1864 A, p. 388. (Balænoidea, or Mysticete.)
 1867 A, p. 110. (Mystacoceti, or Balænoidea.)
 1876 B, xlii, p. 450. (Mystacoceti.)
 1883 D, p. 394. (Mystacoceti.)
 Flower and Lydekker 1891 A, p. 234. (Mystacoceti.)
 Gadow, H. 1898 A, p. 44. (Mystacoceti.)
 Gill, T. 1871 B, p. 122. (Mysticete.)
 1872 B, pp. 16, 97. (Mysticete.)
 Gill, T. 1873 C, p. 25. (Mysticete.)
 Gray, J. E. 1866 A, pp. 68, 194. (Mysticete.)
 Haeckel, E. 1896 A, p. 566. (Mysticeta.)
 Huxley, T. H. 1872 A, p. 336. (Balænoidea.)
 Kükenthal, W. 1891 A, p. 365. ("Bartenwale.")
 Leboucq, H. 1887 A. ("Mysticétes.")
 Murie, J. 1865 A.
 Roger, O. 1896 A, p. 83. (Mystacoceti.)
 Ryder, J. 1878 A.
 Van Beneden, P. J. 1880 B, p. 11. ("Mysticétes.")
 Van Beneden and Gervais 1880 A, pp. 29, 239. ("Mysticétes.")
 Woodward, A. S. 1898 B, p. 273. (Mystacoceti.)
 Zittel, K. A. 1893 B, p. 180. (Mystacoceti.)

BALÆNIDÆ.

- Brandt, J. F. 1873 A, p. 18 (Balænidæ); p. 26. (Balænopteridæ).
 Carte and Macalister 1868 A. (>Balænopteridæ).
 Cope, E. D. 1889 R, p. 876.
 1890 E, p. 611.
 1896 A, p. 139.
 Cuvier, G. 1834 A, viii, pt. ii, pp. 249-332. ("Balæines.")
 Duvernoy, G. L. 1851 A. ("Les Balæines.")
 Flower, W. H. 1864 A. (Balænidæ, Balænopteridæ.)
 1867 A, p. 115. (>Balænopterinæ.)
 1876 B, xlii, p. 450. (Balænidæ, Balænopteridæ.)
 1883 D, p. 394.
 Flower and Lydekker 1891 A, p. 234.
 Gervais, P. 1871 A.
 Gray, J. E. 1866 A, p. 75 (Balænidæ); p. 106 (Balænopteridæ).
 Holder, J. B. 1883 A.
 Huxley, T. H. 1872 A, p. 339.
 Kükenthal, W. 1890 C.
 Marsh, O. C. 1877 E.
 Murie, J. 1865 A. (Balænopteridæ.)
 Nicholson and Lydekker 1889 A, p. 1302.
 Owen, R. 1866 B, p. 415.
 1868 A, p. 276.
 Roger, O. 1896 A, p. 83 (Balænidæ); p. 87 (Balænopteridæ).
 Struthers, J. 1871 A. (>Balænopteridæ.)
 1872 A. (>Balænopteridæ.)
 1881 A. (>Balænidæ.)
 1893 A. (Balænidæ, Balænopteridæ.)
 1895 A. (>Balænidæ.)
 Van Beneden P. J. 1872 A. (>Balænidæ.)
 1880 A. (>Balænidæ.)
 1882 A. (Balænidæ, Balænopteridæ.)
 Zittel, K. A. 1893 B, p. 181 (Balænidæ); p. 183 (Balænopteridæ).

METOPOCETUS Cope. Type *M. durinæ* Cope.

Cope, E. D. 1896 J, p. 141.

Metopocetus durinæ Cope.

Cope, E. D. 1896 J, p. 141, pl. xi, fig. 3.

Trouessart, E. L. 1898 A, p. 1069.
 Miocene; Maryland.

CEPHALOTROPUS Cope. Type *C. coronatus* Cope.

Cope, E. D. 1896 J, pp. 141, 143.

Cephalotropus coronatus Cope.

Cope, E. D. 1896 J, p. 143, pl. xi, fig. 2.

Trouessart, E. L. 1898 A, p. 1069.
 Miocene; Maryland?

CETOTHERIUM Brandt. Type *C. rathkii* Brandt.

Brandt, J. F., 1843, Bull. Acad. Imp. St. Petersb., i, p. 145.

1844 A.

1873 A, pp. 61, 142, 143.

Cope, E. D. 1869 G, p. 10. (Eschrichtius.)

1890 E, p. 612.

1895 A, p. 140.

1896 J, p. 141.

Flower and Lydekker 1891 A, p. 245.

Gaudry, A. 1878 B, p. 32. (Plesiocetus.)

Gray, J. E. 1866 A, p. 131, figs. 21, 22. (Eschrichtius.)

Lydekker, R. 1887 A, p. 42.

1893 D, pt. ii, p. 2.

Pictet, F. J. 1853 A, p. 388.

Van Beneden, P.-J. 1872 A, p. 416.

1872 B, p. 15 (Plesiocetus); p. 16 (Cetotherium).

1875 A. (Plesiocetus.)

1880 B, p. 17. (Plesiocetus.)

Van Beneden and Gervais 1880 A, p. 268. (Cetotherium); p. 274 (Plesiocetus).

Zittel, K. A. 1893 B, p. 181 (Plesiocetus); p. 182 (Cetotherium).

Cetotherium cephalum Cope.

- Cope, E. D. 1867 B, p. 131. (Eschrichtius.)
 1867 C, p. 148. (Eschrichtius.)
 1869 G, pp. 10, 11. (Eschrichtius.)
 1890 E, p. 613, pl. xxii, text fig. 7.
 1891 N, fig. 39.
 1896 J, p. 146, pl. xii, fig. 2.
 Dana, J. D. 1896 A, p. 912, fig. 1539.
 Leidy, J. 1869 A, p. 442. (Eschrichtius.)
 Roger, O. 1896 A, p. 84.
 Trouessart, E. L. 1898 A, p. 1071.
 Miocene; Maryland.

Cetotherium davidsonii Cope.

- Cope, E. D. 1872 Z, p. 29. (Eschrichtius.)
 Bowers, S. 1889 A. (Eschrichtius.)
 Cope, E. D. 1890 E, p. 616. (Balænoptera.)
 1896 J, p. 146, pl. xii, fig. 4.
 Roger, O. 1896 A, p. 86. (Balænoptera.)
 Trouessart, E. L. 1898 A, p. 1079. (Referred to
Balænoptera davidsoni Scammon.)
 Miocene; California.

Cetotherium leptocentrum Cope.

- Cope, E. D. 1867 C, p. 147. (Eschrichtius.)
 1869 G, p. 11. (Eschrichtius.)
 1890 E, p. 616.
 1895 A, p. 148. (C. crassangulum.)
 1896 J, p. 145, pl. xii, fig. 1.
 Leidy, J. 1869 A, p. 442.
 Roger, O. 1896 A, p. 84 (C. leptocentrum); p. 85
 (C. crassangulum).
 Trouessart, E. L. 1898 A, p. 1071.
 Miocene; Virginia.

Cetotherium megalophysum Cope.

- Cope, E. D. 1896 A, p. 146.
 1896 J, p. 143, pl. xi, fig. 1.
 Roger, O. 1896 A, p. 84.

SIPHONOCETUS Cope. Type *Balæna priscus* Leidy.

- Cope, E. D. 1895 A, p. 140.
 Trouessart, E. L. 1898 A, p. 1074.

Siphonocetus clarkianus Cope.

- Cope, E. D. 1895 A, p. 140, pl. vi, fig. 4.
 Roger, O. 1896 A, p. 85.
 Trouessart, E. L. 1898 A, p. 1074.
 Miocene; Maryland.

Siphonocetus expansus Cope.

- Cope, E. D. 1868 I, p. 193. (Megaptera.)
 1869 G, p. 11. (Eschrichtius.)
 1890 E, p. 616. (Cetotherium.)
 1896 A, p. 140, pl. vi, fig. 5.
 Leidy, J. 1869 A, p. 442. (Eschrichtius.)
 Roger, O. 1896 A, p. 85.

- Trouessart, E. L. 1898 A, p. 1071.
 Miocene; Maryland?

Cetotherium mysticetoides (Emmons).

- Emmons, E. 1858 B, p. 205, fig. 26. (Balæna.)
 Cope, E. D. 1875 V, p. 42. (Eschrichtius.)
 1890 E, p. 616.
 Leidy, J. 1869 A, p. 440. (Balæna.)
 Roger, O. 1896 A, p. 84 (Cetotherium); p. 87 (Balæna).
 Trouessart, E. L. 1898 A, p. 1071 (Cetotherium); p.
 1092 (Balæna).
 Van Beneden, P. J. 1882 A, p. 23.
 Miocene; North Carolina.

Cetotherium parvum Trouessart.

- Trouessart, E. L. 1898 A, p. 1071. (To replace C.
pusillum Cope, not of Nordmann.)
 Cope, E. D. 1868 G, p. 159. (Balænoptera pusilla.)
 1868 I, p. 190 (?*Delphinapterus tyrannus*); p.
 191 (Eschrichtius pusillus).
 1869 G, p. 7 (?*Delphinapterus tyrannus*); p.
 11 (Eschrichtius pusillus).
 1890 E, p. 616. (C. pusillum).
 1895 A, p. 145. (C. pusillum).
 Leidy, J. 1869 A, p. 442. (Eschrichtius pusillus.)
 Roger, O. 1896 A, p. 84. (C. pusillum).
 Miocene; Maryland, South Carolina.

Cetotherium polyporum Cope.

- Cope, E. D. 1869 I. (Eschrichtius.)
 1870 F, p. 285. (Eschrichtius.)
 1875 V, p. 42, pl. v, figs. 3, 3a. (Eschrichtius.)
 1890 E, p. 616.
 1895 A, p. 149, pl. vi, fig. 7.
 Roger, O. 1896 A, p. 84.
 Trouessart, E. L. 1898 A, p. 1071.
 Miocene; North Carolina.

- Trouessart, E. L. 1898 A, p. 1074.
 Miocene; Virginia, Maryland.

Siphonocetus priscus (Leidy).

- Leidy, J. 1851 F, p. 308. (Balæna.)
 Cope, E. D. 1867 B, p. 132. (Balæna.)
 1867 C, p. 144. (Balænoptera.)
 1868 I, p. 193. (Balænoptera.)
 1869 G, pp. 10, 11. (Eschrichtius.)
 1890 E, p. 616. (Cetotherium.)
 1895 A, p. 140, pl. vi, fig. 3.
 Leidy, J. 1869 A, p. 441. (Eschrichtius.)
 Roger, O. 1896 A, p. 85.
 Trouessart, E. L. 1898 A, p. 1074.
 Miocene; Virginia.

ULIAS Cope. Type *U. moratus* Cope.

- Cope, E. D. 1895 A, p. 141.
 Trouessart, E. L. 1898 A, p. 1074.

Ulias moratus Cope.

- Cope, E. D. 1895 A, p. 141, pl. vi, fig. 1.
 Roger, O. 1896 A, p. 85.
 Miocene; Maryland?

TRETULIAS Cope. Type *T. buccatus* Cope.

Cope, E. D. 1895 A, p. 143.
 Trouessart, E. L. 1898 A, p. 1074.

Tretulias buccatus Cope.

Cope, E. D. 1895 A, p. 143, pl. vi, fig. 2.

Roger, O. 1896 A, p. 85.
 Trouessart, E. L. 1898 A, p. 1074.
 Miocene; Maryland.

MESOCETUS Van Beneden. Type *M. longirostris* Van Beneden.

Van Beneden, P. J. 1880 B, p. 22.
 Cope, E. D. 1896 A, p. 153.
 Van Beneden, P. J. 1882 B.

Mesocetus siphunculus Cope.

Cope, E. D. 1895 A, p. 153.

Cope, E. D. 1896 J, p. 146, pl. xii, fig. 6.
 Roger, O. 1896 A, p. 85.
 Trouessart, E. L. 1898 A, p. 1076.
 Miocene; Virginia.

RHEGNOPSIS Cope. Type *Balæna palæatlanticus* Leidy.

Cope, E. D. 1896 J, p. 145.
 Leidy, J. 1869 A, p. 440 (Protobalæna, type *B. palæatlanticus*; preocc. by Van Beneden, 1867).
 Trouessart, E. L. 1898 A, p. 1077.

Rhegnopsis palæatlanticus (Leidy).

Leidy, J. 1861 F, p. 308. (Balæna.)
 Cope, E. D. 1867 B, p. 132. (Balæna.)

Cope, E. D. 1867 C, p. 147. (Balæna.)
 1868 I, p. 193. (Balænoptera.)
 1890 E, p. 616. (Balænoptera.)
 1896 J, p. 145, pl. xii, fig. 5.
 Leidy, J. 1869 A, p. 440. (Protobalæna.)
 Roger, O. 1896 A, p. 86. (Balænoptera.)
 Trouessart, E. L. 1898 A, p. 1077.
 Miocene; Virginia.

BALÆNOPTERA, Lacépède.

Lacépède, B. G. É., 1804, Hist. Nat. d. Cétacés; Tab. ord., p. xxxvi.

Brandt, J. F. 1873 A, p. 27.
 Carte and Macallister 1869 A.

Cope, E. D. 1890 E, p. 612.
 Flower, W. H. 1864 A, p. 373.
 1885 A.

Flower and Lydekker 1891 A, p. 242.

Gray, J. E. 1866 A, pp. 186, 382.

Lydekker, R. 1887 A, p. 34.

Murle, J. 1865 A. (Physalus.)

Struthers, J. 1871 A.

Struthers, J. 1872 A.

Struthers, J. 1893 A.

Tomes, C. S. 1898 A, p. 383.

Van Beneden, P. J. 1880 B, p. 14.

1882 A, p. 61.

Van Beneden and Gervais 1880 A, p. 137.

Zittel, K. A. 1893 B, p. 182.

Balænoptera sursiplana Cope.

Cope, E. D. 1895 A, p. 151.

Roger, O. 1896 A, p. 86.

Trouessart, E. L. 1898 A, p. 1077.

Miocene; Maryland.

MEGAPTERA Gray. Type *M. longimana*.

Gray, J. E., 1846, Zool. "Erebus" and "Terror," p. 16.

Flower, W. H. 1864 A.
 1883 D, p. 394.

Flower and Lydekker 1891 A, p. 241.

Gervais, P. 1871 A.

Gray, J. E. 1866 A, p. 117.

Lydekker, R. 1887 A, p. 31.

Struthers, J. 1885 A.

1898 A.

Van Beneden, P. J. 1868 A.

1890 B, p. 13.

1892 A, p. 26.

Van Beneden and Gervais 1880 A, p. 116.

Zittel, K. A. 1893 B, p. 182.

Megaptera boops (Linn).

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 76. (Balæna.)

Dawson, J. W. 1883 A, p. 202. (*M. longimana*.)

Flower and Lydekker 1891 A, p. 241, fig. 79.

Gervais, P. 1871 A.

Gray, J. E. 1866 A, p. 119, figs. 14-18. (*M. longimana*.)

Struthers, J. 1885 A, p. 124.

1888 A.

Trouessart, E. L. 1898 A, p. 1065.

Van Beneden and Gervais 1880 A, p. 120, pl. x; pl. xi, figs. 1-8.

Recent in North Atlantic: Pleistocene; Ontario.

MESOTERAS Cope. Type *M. kerrianus* Cope.

Cope, E. D. 1870 R, p. 128.
 1870 F, p. 236.
 1875 V, p. 44, pl. viii, fig. 1.
 1890 E, p. 613.

Zittel, K. A. 1893 B, p. 183.

Mesoterias kerrianus Cope.

Cope, E. D. 1870 R, p. 128.

Cope, E. D. 1870 F, p. 236.

1875 V, p. 44.

1890 E, pp. 613, 616.

Roger, O. 1896 A, p. 86.

Trouessart, E. L. 1898 A, p. 1068.

Miocene; North Carolina.

BALENA Linn. Type *B. mysticetus* Linn.*Linnaeus*, C., 1758, Syst. Nat., ed. 10, i, p. 75.

Flower, W. H. 1864 A, p. 390.

1883 D, p. 396.

1885 A.

Flower and Lydekker 1891 A, p. 236.

Gervais, P. 1871 A.

Gray, J. E. 1866 A, p. 79.

Holder, J. B. 1883 A.

Huxley, T. H. 1872 A, p. 337.

Lydekker R. 1887 A, p. 16.

Nicholson and Lydekker 1889 A, p. 1308.

Owen, R. 1866 B, p. 415.

Parker, W. K. 1868 A, p. 217.

Pictet, F. J. 1853 A, p. 367.

Struthers, J. 1881 A.

1898 A,

1896 A.

Roger, O. 1896 A, p. 87.

Trouessart, E. L. 1898 A, p. 1089.

Van Beneden and Gervais 1880 A, p. 32.

Zittel, K. A. 1893 B, p. 183.

***Balaena affinis* Owen.**

Owen, R. 1846 B, p. 530, fig. 221.

Cope, E. D. 1895 A, p. 152.

Emmons, E. 1858 B, p. 206. (Doubtful identification.)

Lydekker, R. 1887 A, p. 17, fig. 7.

Zittel K. A. 1893 B, p. 183.

Miocene; England, Maryland?, North Carolina.

For citations to descriptions of uncertain and unidentified remains of *Cete* see Ledy 1869 A, p. 443.**Order UNGULATA.**

Baur, G. 1884 F.

Cope, E. D. 1873 E, p. 561.

1873 F.

1875 C, p. 26.

1881 I.

1882 Y.

1883 D.

1883 FF.

1884 E.

1885 O.

1885 U.

1887 I.

1887 N.

1888 T.

1889 C.

1889 R, pp. 875, 876.

Flower, W. H. 1883 D, p. 421.

1885 A.

Flower and Lydekker 1891 A, p. 273.

Gadow, H. 1896 A, p. 45.

Gegenbaur, C. 1898 A.

Gill, T. 1872 A, p. 298.

1872 B, pp. 8, 47, 70.

Haeckel, E. 1896 A, p. 524.

Huxley, T. H. 1872 A, p. 292.

Kowalevsky, W. 1873 A, p. 152.

1874 A.

Leuthardt, F. 1891 A, p. 93.

Lydekker, R. 1885 C.

1886 A.

1886 B.

1896 B.

Marsh, O. C. 1877 E.

1884 F, p. 173.

Mettam, A. E. 1896 A.

Nicholson and Lydekker 1889 A, p. 1312.

Osborn, H. F. 1890 D.

1892 H.

1892 I.

1893 A, p. 379.

1893 D.

Owen R. 1845 B, p. 523.

1851 C, p. 735.

1868 A, p. 340.

Parker, W. K. 1868 A, p. 219. (Herbivora.)

Paulli, S. 1900 A.

Pavlov, M. 1888 A.

1890 A.

1892 A.

Roger, O. 1896 A, p. 142.

Rütimeyer, L. 1888 A.

1891 A.

Ryder, J. A. 1878 A.

Schlosser, M. 1885 A.

1886 A.

1886 B.

1887 A.

1890 D.

1892 A, p. 216.

Schmidt, O. 1886 A, p. 126.

Slade, D. D. 1888 A, p. 244.

1893 A.

Steinmann and Döderlein 1890 A, p. 746.

Taeker, J. 1892 A.

Tomes, C. S. 1898 A, p. 390.

Trouessart, E. L. 1898 A, p.

Turner, H. N. 1848 A.

Wiedersheim, R. 1881 A, p. 360.

Woodward, A. S. 1898 B, p. 287.

Wortman, J. L. 1886 A, p. 409.

1893 B, p. 421.

Zittel, K. A. 1893 B, p. 203.

Suborder CONDYLLARTHRA Cope.

Cope, E. D. 1881 X, p. 1017.

Ameghino, F. 1891 C, p. 214.

1896 A, p. 445.

Branco, W. 1897 A, p. 18.

Cope, E. D. 1882 A. (Taxeopoda, in part; Condylarthra.)

1882 E, p. 178.

1882 F.

- Cope, E. D. 1882 R.
 1882 Y. (Taxeopoda, in part; Condylarthra.)
 1883 D. (Taxeopoda, in part; Condylarthra.)
 1883 E.
 1884 C. (Taxeopoda, in part.)
 1884 O, pp. 378, 382 (Condylarthra); pp. 167, 374, 378 (Taxeopoda, in part.)
 1884 AA.
 1885 K, p. 458.
 1885 O.
 1885 U.
 1886 Q, p. 238. (Taxeopoda, in part.)
 1887 I.
 1887 N. (Taxeopoda, in part.)
 1887 S, p. 342. (Taxeopoda, in part; Condylarthra.)
 1888 Q. (Taxeopoda, in part.)
 1888 T.
 1888 CC.
 1889 C. (Taxeopoda, in part; Condylarthra.)
 1891 N, p. 79. (Taxeopoda, in part; Condylarthra.)
 1892 S.
 1898 B, p. 120 (Condylarthra); pp. 106, 120 (Taxeopoda, in part.)
 Earle, C. 1893 B.
 1893 D.
 Flower and Lydekker 1891 A, p. 438.
 Gadow, H. 1896 A, p. 46.
 Haeckel, E. 1895 A, pp. 529, 533.
 Hay, O. P. 1899 F, p. 682.
 Lydekker, R. 1885 E, p. 469. (Taxeopoda, in part.)
 1886 A, p. 172.
 Marsh, O. C. 1884 F, p. 171. (Protungulata.)
 1892 D, p. 445. (Mesodactyla.)
 Marsh, O. C. 1894 L, p. 26. (Mesodactyla.)
 Matthew, W. D. 1897 B, pp. 261, 323 (Protungulata); p. 293 (Condylarthra).
 Nicholson and Lydekker 1889 A, p. 1378
 Osborn, H. F. 1888 F.
 1890 D, p. 536.
 1892 I.
 1893 A, p. 383.
 1893 D.
 1898 H, p. 175.
 Osborn and Earle 1895 A, p. 47.
 Parsons, F. G. 1899 A.
 1900 A.
 Pavlov, M. 1887 A. (Taxeopoda, in part; Condylarthra.)
 1888 A.
 Röse, C. 1896 A, p. 84.
 Roger, O. 1896 A, p. 163.
 Rüttimeyer, L. 1888 A. (Taxeopoda, in part; Condylarthra.)
 1890 A. (Taxeopoda, in part; Condylarthra.)
 1891 A.
 Schlosser, M. 1884 B, p. 641.
 1885 A, p. 683.
 1886 B.
 1887 A.
 1888 A, p. 584.
 1889 A.
 1890 C.
 1892 A.
 Scott, W. B. 1892 A, p. 427.
 Steinmann and Döderlein 1890 A, p. 749.
 Tomes, C. S. 1898 A, p. 443.
 Woodward, A. S. 1898 B, p. 289.
 Wortman, J. L. 1883 A, p. 706. (Taxeopoda, in part.)
 1885 A, p. 297. (Taxeopoda, in part.)
 Zittel, K. A. 1893 B, pp. 213, 725.

PHENACODONTIDÆ.

- Cope, E. D. 1881 X, p. 1018.
 Ameghino, F. 1891 C, p. 215.
 Cope, E. D. 1882 E, p. 178.
 1882 F, pp. 96, 96.
 1882 R.
 1883 E.
 1884 O, pp. 384, 386.
 1884 AA, pp. 793, 892.
 1887 N, p. 986.
 Matthew, W. D. 1897 C, pp. 294, 299.
 1899 A, pp. 28, 29, 32.
 Nicholson and Lydekker 1889 A, p. 218.
 Osborn and Earle 1895 A, p. 49.
 Pavlov, M. 1887 A.
 1888 A.
 Roger, O. 1896 A, p. 165.
 Rüttimeyer, L. 1888 A, p. 44.
 Schlosser, M. 1885 A, p. 683.
 1886 B.
 1888 A, p. 585.
 1890 C.
 Steinmann and Döderlein 1890 A, p. 750.
 Wortman, J. L. 1882 B, p. 724.
 Zittel, K. A. 1893 B, p. 218.

OXYACODON Osb. and Earle. Type *O. apiculatus* Osb. and Earle.

- Osborn and Earle 1895 A, p. 25.
 Matthew, W. D. 1897 C, p. 292.
 1899 A, p. 28.
 Trouessart, E. L. 1898 A, p. 72.
 1899 A, p. 1290.
 A genus of uncertain position; placed by Trouessart first in Primates, later in Carnivora; by Matthew in *Credodonta incertæ sedis*.
Oxyacodon agapetillus (Cope).
 Cope, E. D. 1884 K, p. 320. (Anisonchus.)
 1888 CC, p. 306. (Anisonchus.)
 Matthew, W. D. 1897 C, pp. 264, 292, fig. 10.
 Matthew, W. D. 1899 A, p. 28.
 Roger, O. 1896 A, p. 165. (Anisonchus.)
 Trouessart, E. L. 1899 A, p. 1290.
 Eocene (Puerco); New Mexico.
Oxyacodon apiculatus Osb. and Earle.
 Osborn and Earle 1895 A, p. 25, fig. 6.
 Matthew, W. D. 1897 C, p. 292.
 1899 A, p. 28.
 Roger, O. 1896 A, p. 252.
 Trouessart, E. L. 1898 A, p. 72.
 1899 A, p. 1290.
 Eocene (Puerco), New Mexico.

PROTOGONODON Scott. Type *Mioclanus pentacus* Cope.

Scott, W. B. 1892 B, p. 322.

Earle, C. 1893 B.

1893 D, p. 51.

Matthew, W. D. 1897 C, pp. 301, 302.

Osborn, H. F. 1894 A, p. 235.

Osborn and Earle 1895 A, pp. 64, 67.

Scott, W. B. 1892 A, p. 427.

Zittel, K. A. 1893 B, p. 586.

Protopogonodon pentacus (Cope).

Cope, E. D. 1888 CC, p. 325. (*Mioclanus*.)

Earle, C. 1893 B.

Matthew, W. D. 1897 C, pp. 264, 302.

1899 A, p. 28.

Osborn and Earle 1895 A, p. 67, figs. 20, 21.

Roger, O. 1896 A, p. 166.

Scott, W. B. 1892 A, p. 427.

1892 B, p. 322.

Eocene (Puerco); New Mexico.

Protopogonodon stenognathus Matth.

Matthew, W. D. 1897 C, pp. 264, 302.

1899 A, p. 28.

Eocene (Puerco); New Mexico.

TETRACLÆNODON Scott. Type *Mioclanus flowerianus* Cope.

Scott, W. B. 1892 B, p. 299.

Cope, E. D. 1881 H, pp. 487, 492. (*Protopogonia*, type *P. subquadrata*.)

1882 E, p. 178. (*Protopogonia*.)

1882 F, p. 96. (*Protopogonia*.)

1884 O, pp. 386, 424. (*Protopogonia*.)

1884 AA, p. 893. (*Protopogonia*.)

1887 I, p. 657. (*Protopogonia*.)

1888 CC, p. 359. (*Protopogonia*.)

1893, in Earle, C. 1893 B, p. 378. (*Euprotogonia*, to replace *Protopogonia* preoccupied.)

1894 I, p. 594. (*Euprotogonia*.)

Earle, C. 1893 D, p. 50. (*Euprotogonia*.)

1898 A, p. 262. (*Euprotogonia*.)

Hay, O. P. 1899 A, p. 593.

Matthew, W. D. 1897 C, pp. 301, 303. (*Euprotogonia*.)

1899 A, p. 29.

Nicholson and Lydekker 1889 A, p. 1382. (*Protopogonia*.)

Osborn, H. F. 1894 A, p. 235. (*Euprotogonia*.)

1898 A, p. 146. (*Euprotogonia*.)

1898 G, p. 163. (*Euprotogonia*.)

Osborn and Earle 1895 A, pp. 64, 66. (*Euprotogonia*.)

Pavlov, M. 1887 A. (*Protopogonia*.)

Rütimeyer, L. 1888 A, p. 47. (*Protopogonia*.)

Schlosser, M. 1894 A, p. 158. (*Protopogonia*.)

Scott, W. B. 1892 A, p. 427 (*Protopogonia*); p. 421 (*Tetraclænodon*).

1892 B, p. 299. (*Tetraclænodon*, type *Mioclanus flowerianus* Cope.)

1892 D, p. 78. (*Tetraclænodon*.)

Steinmann and Döderlein 1890 A, p. 751. (*Protopogonia*.)

Trouessart, E. L. 1896 A, p. 724. (*Euprotogonia*.)

Zittel, K. A. 1893 B, p. 218 (*Protopogonia*); p. 588 (*Tetraclænodon*).

Tetraclænodon minor (Matth.).

Matthew, W. D. 1897 C, pp. 264, 310. (*Euprotogonia*.)

Cope, E. D. 1888 CC, p. 306. (*Protopogonia zuniensis*, in part.)

Matthew, W. D. 1899 A, p. 29. (*Euprotogonia*.)
Eocene (Torrejon); New Mexico.

Tetraclænodon puercensis (Cope).

Cope, E. D. 1881 H, p. 492. (*Phenacodus*.)

1882 E, p. 180. (Syn. *Phenacodus vortmani*.)

1882 EE, p. 833. (*Protopogonia plicifera*.)

1883 M, p. 561. (*Phenacodus calceolatus*.)

Cope, E. D. 1884 K, p. 309. (*Protopogonia plicifera*.)

1884 O, pp. 433, 488, pl. xxv, figs. 12, 13; pl. lvii f, figs. 8, 9 (*Phenacodus puercensis*);

pp. 433, 487, pl. xxiv g, fig. 7 (*Phenacodus calceolatus*); p. 424, pl. xxv f, figs. 2, 3

(*Protopogonia plicifera*).

1884 AA, p. 893, fig. 14 (*Protopogonia plicifera*); p. 900, fig. 22 (*Phenacodus puercensis*).

1885 J, p. 387. (*Phenacodus*.)

1887 I, p. 657. (*Phenacodus puercensis*.)

1888 CC, pp. 305, 359 (*Phenacodus puercensis*,
P. *plicifera*, P. *calceolata*); p. 330 (*Mioclanus flowerianus*).

Earle, C. 1893 D, p. 50. (*Euprotogonia*.)

Hay, O. P. 1899 A, p. 593. (*Tetraclænodon*.)

Matthew, W. D. 1897 C, pp. 264, 304, 320. (*Euprotogonia*.)

1899 A, p. 29.

Osborn, H. F. 1898 G, p. 163, fig. 4. (*Euprotogonia*.)

Osborn and Earle 1895 A, p. 65, fig. 19 (*Euprotogonia puercensis*); p. 65 (*Euprotogonia plicifera*).

Pavlov, M. 1887 A, figs. 1, 3. (*Phenacodus*.)

1888 A, p. 136. (*Phenacodus*.)

Roger, O. 1896 A, p. 32 (*T. flowerianus*); p. 165 (*Euprotogonia calceolata*, *E. puercensis*).

Schlosser, M. 1896 B, p. 135, pl. vi, fig. 33 (*Phenacodus puercensis*); pl. v, fig. 30; pl. vi, fig. 32 (*Protopogonia plicifera*).

Scott, W. B. 1892 B, p. 300. (*Tetraclænodon flowerianus*.)

Trouessart, E. L. 1896 A, p. 724. (*Euprotogonia*.)

Wortman, J. L. 1896 A, p. 106, pl. ii, fig. A, text fig. 16 (*Euprotogonia puercensis*); pl. ii, fig. F, text fig. 17 (*Euprotogonia plicifera*).

Zittel, K. A. 1893 B, p. 218, fig. 158.

Eocene (Torrejon); New Mexico.

Tetraclænodon subquadratus Cope.

Cope, E. D. 1881 H, p. 492. (*Protopogonia*.)

1884 O, p. 426, pl. lvii, figs. 11, 12. (*Protopogonia*.)

1884 AA, p. 893. (*Protopogonia*.)

1888 CC, p. 306. (Syn. of *Protopogonia puercensis*.)

Matthew, W. D. 1897 C, p. 304. (Syn. of *Euprotogonia puercensis*.)

1899 A, p. 29. (Syn. of *Euprotogonia puercensis*.)

Osborn and Earle 1895 A, p. 64. (*Euprotogonia*.)

Pavlov, M. 1887 A, fig. 7. (*Protopogonia*.)

Scott, W. B. 1892 A, p. 427, fig. 7. (*Protopogonia*.)

Eocene (Torrejon); New Mexico.

PHENACODUS Cope. Type *P. primævus* Cope.

- Cope, E. D. 1873 D, p. 3.
 Baur, G. 1890 B.
 Branch, W. 1897 A, p. 18.
 Cope, E. D. 1875 C, p. 18.
 1877 K, p. 173.
 1881 H, p. 487.
 1881 X.
 1882 E, p. 177.
 1882 F, p. 96.
 1882 Y.
 1883 B, p. 275.
 1883 G.
 1883 BB.
 1884 O, pp. 386, 428.
 1884 AA, p. 893 (*Phenacodus*); p. 900 (*Trispondylus*, type *P. vortmani*).
 1885 K, p. 458.
 1886 L.
 1886 Q.
 1888 T.
 1889 C.
 1889 J, p. 192.
 1892 S, p. 411.
 Earle, C. 1893 D.
 Flower and Lydekker 1889 A, p. 439.
 Leuthardt, F. 1891 A.
 Lockwood, S. 1886 A, p. 325.
 Lydekker R. 1886 D, p. 326.
 1889 K.
 Marsh, O. C. 1892 C, p. 352. (Syn. of *Helohyus*.)
 Matthew, W. D. 1897 C, pp. 299, 301, 306.
 Nicholson and Lydekker 1889 A, p. 1880.
 Osborn, H. F. 1890 D, p. 532.
 1893 D.
 Owen, R. 1886 B.
 Pavlow, M. 1887 A.
 1888 A, p. 135.
 1900 A, p. 46.
 Roger, O. 1899 A.
 Rüttmeyer, L. 1888 A, p. 38.
 Schlosser, M. 1886 A, p. 683.
 1886 A, pp. 252, 432.
 1886 B.
 1894 A, p. 158.
 Scott, W. B. 1892 A, p. 405.
 Steinmann and Döderlein 1890 A, p. 751.
 Tomes, C. S. 1898 A, p. 443.
 Woodward, A. S. 1898 B, p. 290.
 Woodward, H. 1886 B.
 Wortman, J. L. 1882 B, p. 725.
 1883 A, p. 708, fig. 125.
 1886 A, p. 472.
 Zittel, K. A. 1893 B, p. 219.

Phenacodus brachypternus Cope.

- Cope, E. D. 1882 E, pp. 179, 180.
 1884 O, pp. 433, 490, pl. xxv c, fig. 14.
 1884 AA, p. 901, fig. 24.
 Matthew, W. D. 1899 A, p. 32.
 Roger, O. 1896 A, p. 166.
 Trouessart, E. L. 1898 A, p. 725.
 Eocene (Wasatch); Wyoming.

Phenacodus hemiconus Cope.

- Cope, E. D. 1882 E, p. 179.
 1884 O, pp. 433, 463, pl. xxv c, fig. 16.

- Matthew, W. D. 1899 A, p. 32.
 Roger, O. 1896 A, p. 166.
 Trouessart, E. L. 1898 A, p. 725.
 Eocene (Wasatch); Wyoming.

Phenacodus macropternus Cope.

- Cope, E. D. 1882 E, pp. 179, 180.
 1884 O, pp. 433, 490, pl. xxv c, fig. 15.
 Matthew, W. D. 1899 A, p. 32.
 Roger, O. 1896 A, p. 166.
 Trouessart, E. L. 1898 A, p. 725.
 Eocene (Wasatch); Wyoming.

Phenacodus nunienus Cope.

- Cope, E. D. 1884 O, pp. 433, 434, pl. lvii h, figs. 1, 2.
 1884 AA, p. 898.
 Matthew, W. D. 1897 C, p. 396, footnote.
 1899 A, p. 32.
 Roger, O. 1896 A, p. 166.
 Trouessart, E. L. 1898 A, p. 725. (*P. nunienus*)
 Eocene (Wasatch); Wyoming.

Phenacodus omnivorus Cope.

- Cope, E. D. 1874 O, p. 11.
 1875 C, p. 18.
 1877 K, p. 178, pl. xlv, fig. 6.
 1882 E, p. 179.
 1884 O, p. 463.
 Matthew, W. D. 1899 A, p. 32. (Syn. of *P. primævus*.)
 Eocene (Wasatch); New Mexico.

Phenacodus primævus Cope.

- Cope, E. D. 1873 D, p. 3.
 1874 B, p. 458.
 1874 O, p. 10.
 1875 C, p. 18.
 1877 K, p. 174, pl. xlv, figs. 1-5.
 1881 D, p. 200. (*P. primævus*; *P. trilobatus*.)
 1882 E, p. 178.
 1883 G, p. 563, pls. i, ii.
 1883 BB, pl. xii.
 1884 O, pp. 433, 435, pls. lvii b; lvii c; lvii d; lvii e; lvii h, figs. 1-16 (*P. primævus*); p. 463, pl. lviii, fig. 11 (*P. trilobatus*).
 1884 AA, p. 893, figs. 15-19, pls. xxviii, xxix.
 1887 I, p. 657.
 1887 N, p. 987, fig. 1.
 1887 S, p. 270, figs. 47, 48; p. 273, fig. 51; p. 275, pl. vii, figs. 3, 4.
 1889 U.
 King, C. 1878 A, p. 376.
 Matthew, W. D. 1899 A, pp. 32, 36.
 Osborn, H. F. 1897 B.
 1898 G, pl. xii, text figs. 1-4.
 1898 Q, p. 11.
 Osborn and Wortman 1892 A, pp. 83, 86.
 Pavlow, M. 1887 A.
 Roger, O. 1896 A, p. 166. (*P. primævus*, *P. trilobatus*.)
 Schlosser, M. 1886 B, p. 12. (*P. trilobatus*.)
 Scott, W. B. 1892 A, p. 427, fig. 12.
 Trouessart, E. L. 1898 A, p. 725.
 Wortman, J. L. 1883 A, p. 708, fig. 127.
 Zittel, K. A. 1893 B, p. 219, figs. 151, 153, 159, 160.
 Eocene (Wasatch, Wind River); Wyoming, New Mexico.

Phenacodus suicatus Cope.

- Cope, E. D. 1874 O, p. 11.
 1875 C, p. 18.
 1877 K, p. 179, pl. xlv, fig. 7.
 1882 E, p. 179.
 Matthew, W. D. 1899 A, p. 32.
 Roger, O. 1896 A, p. 166.
 Eocene; New Mexico.

Phenacodus vortmani Cope.

- Cope, E. D. 1880 N, p. 747. (Hyracotherium.)
 1881 D, p. 199.
 1882 E, p. 179, 180. (P. vortmani, P. apternus.)
 1884 O, pp. 433, 464, pls. lvii g; lviii h, fig. 17; lviii, figs. 8-10.

- Cope, E. D. 1884 AA, p. 899, text figs. 20, 21, pl. xxx; p. 900, footnote. ("Trispyndylus.")
 1887 I, p. 657. (P. wortmani.)
 1889 U.

- Matthew, W. D. 1899 A, pp. 32, 36.
 Nicholson and Lydekker 1889 A, p. 1382.
 Osborn and Wortman 1892 A, p. 86.
 Pavlow, M. 1887 A.
 Roger, O. 1896 A, p. 166. (P. vortmani, P. apternus.)
 Schlosser, M. 1886 B, p. 12.
 Scott, W. B. 1892 A, p. 427, fig. 7.
 Trouessart, E. L. 1898 A, p. 725. (P. wortmanni.)
 Zittel, K. A. 1893 B, p. 219. (P. wortmani.)
 Eocene (Wasatch, Wind River); Wyoming.

Ectocion Cope. Type *Oligotomus osbornianus* Cope.

- Cope, E. D. 1882 X.
 1884 O, pp. 694, 695.
 1887 N, pp. 997, 1061.
 Earle, C. 1892 C, p. 276. (Ectocium.)
 Matthew, W. D. 1897 C, p. 301.
 Wortman, J. L. 1883 A, p. 710. (Ectocium.)
 1896 A, pp. 81, 83. (Ectocium.)
 Zittel, K. A. 1893 B, p. 242. (Syn. of Eohippus.)

Ectocion osbornianum Cope.

- Cope, E. D. 1882 E, p. 182. (Oligotomus.)

- Cope, E. D. 1882 X.
 1884 O, p. 696, pl. xxv c, figs. 9, 10.
 1887 N, p. 1061, fig. 25.
 Matthew, W. D. 1899 A, pp. 32, 36. (Phenacodus.)
 Roger, O. 1896 A, p. 169. (Eohippus.)
 Trouessart, E. L. 1898 A, p. 724.
 Zittel, K. A. 1893 B, p. 242, fig. 177. (Eohippus.)
 Eocene (Wasatch, Wind River); Wyoming.

MENISCOTHERIIDÆ.

- Cope, E. D. 1882 R, p. 334.
 Ameghino, F. 1897 A, p. 84.
 Cope, E. D. 1882 F, p. 96.
 1883 E.
 1884 O, p. 384.
 1884 AA, pp. 793, 901.
 Matthew, W. D. 1897 C, p. 294.
 Nicholson and Lydekker 1889 A, p. 1382.

- Osborn, H. F. 1891 D, p. 911.
 1892 C.
 1893 F, p. 127.
 Osborn and Earle, 1896 A, pp. 47, 49.
 Roger, O. 1896 A, p. 167.
 Pavlow, M. 1887 A.
 Steinmann and Döderlein 1890 A, p. 751.
 Zittel, K. A. 1893 B, p. 220.

MENISCOTHERIUM Cope. Type *M. chamense* Cope.

- Cope, E. D. 1874 O, p. 8.
 1877 K, p. 251.
 1881 G, p. 396.
 1882 F, p. 97.
 1882 R, p. 334.
 1884 O, pp. 386, 493.
 1884 AA, p. 901.
 1886 K, p. 721.
 1887 I, p. 657.
 1887 N, p. 1018.
 1892 S, p. 412.
 Lydekker, R. 1889 B.
 Marsh, O. C. 1892 D, p. 445.
 Matthew, W. D. 1897 C, p. 309.
 Nicholson and Lydekker 1889 A, pp. 1376, 1382.
 Osborn, H. F. 1890 D, p. 582.
 1891 D, p. 911.
 1892 C.
 1892 G, figs. 1-4.
 1893 D, p. 43.
 1893 F, p. 127.
 Osborn and Wortman 1893 A, p. 16.
 Pavlow, M. 1887 A.

- Schlosser, M. 1886 A, p. 683.
 1886 B, p. 21.
 Scott, W. B. 1892 A, p. 429.
 Wortman, J. L. 1886 A, p. 475.
 1896 B, p. 262.
 Zittel, K. A. 1893 B, p. 221.

Meniscotherium chamense Cope.

- Cope, E. D. 1874 O, p. 8.
 1877 K, pp. 251, 252, pl. lxvi, fig. 18.
 1884 AA, p. 904.
 King, C. 1878 A, p. 376.
 Marsh, O. C. 1892 D, p. 445.
 Matthew, W. D. 1899 A, p. 32.
 Roger, O. 1896 A, p. 167.
 Trouessart, E. L. 1898 A, p. 726.
 Eocene (Wasatch); New Mexico.

Meniscotherium tapiacitis Cope.

- Cope, E. D. 1882 C, p. 470.
 1884 O, p. 506, pl. xxv f, fig. 15.
 1884 AA, p. 905, fig. 26 b.
 Matthew, W. D. 1899 A, p. 32.

Roger, O. 1896 A, p. 167.
Eocene (Wasatch); New Mexico.

Meniscotherium terrærubræ Cope.

Cope, E. D. 1881 H, p. 493.
1882 C, p. 470.
1884 O, p. 496, pls. xxv f, figs. 12-14; pl. xxv g.
1884 AA, p. 904, figs. 25-28.

Matthew, W. D. 1899 A, p. 32.
Pavlov, M. 1887 A, figs. 12 a, 12 b.
Roger, O. 1896 A, p. 167.
Trouessart, E. L. 1898 A, p. 726.
Zittel, K. A. 1893 B, p. 221, fig. 163.
Eocene (Wasatch); New Mexico.

HYRACOPS Marsh. Type *H. socialis* Marsh.

Marsh, O. C. 1892 D, p. 446.
Cope, E. D. 1892 S, p. 412. (Syn.? of *Meniscotherium*.)
Matthew, W. D. 1899 A, p. 82, footnote.
Osborn, H. F. 1892 G, p. 506, figs. 1, 2. (Syn. of *Meniscotherium*.)
Zittel, K. A. 1893 B, p. 221.

Hyracops socialis Marsh.

Marsh, O. C. 1892 D, p. 447, figures.

Matthew, W. D. 1899 A, p. 32.
Osborn, H. F. 1892 G, p. 506, figs. 1-4. (*Meniscotherium*.)
1893 F, p. 128, figs. 1, 2. (*Meniscotherium*.)
Roger, O. 1896 A, p. 167.
Trouessart, E. L. 1898 A, p. 726.
Woodward, A. S. 1898 B, p. 289.
Zittel, K. A. 1893 B, p. 221, fig. 162.
Eocene (Wasatch); New Mexico.

MIOCLÆNIDÆ.

Osborn and Earle 1895 A, pp. 48, 61.
Matthew, W. D. 1897 C, p. 311.

Roger, O. 1896 A, p. 163.
Scott, W. B. 1892 B, p. 322. (Not named.)

MIOCLÆNUS Cope. Type *M. turgidus* Cope.

Cope, E. D. 1881 H, pp. 487, 490, 491.
1881 U, p. 830.
1882 E, p. 187.
1882 K, p. 71.
1884 K, p. 312.
1884 O, pp. 259, 324.
1884 S, p. 349.
1888 D.
1888 CC, p. 319.
Earle, C. 1893 B, p. 377.
Major, Fors. 1893 A, p. 199.
Matthew, W. D. 1897 C, p. 312.
Osborn, H. F. 1888 E.
1888 F, p. 1067.
Osborn and Earle 1895 A, p. 48.
Osborn and Wortman 1892 A, p. 118.
Pavlov, M. 1887 A.
Schlosser, M. 1887 B, p. 320.
Scott, W. B. 1892 A, p. 413.
1892 B, p. 321.
1892 D, p. 90.
Steinmann and Döderlein 1890 A, p. 712.
Trouessart, E. L. 1898 A, p. 719.
Zittel, K. A. 1893 B, pp. 585, 588, 589.

Mioclænus acolytus Cope.

Cope, E. D. 1882 C, p. 462. (*Hyopsodus*.)
1882 C, p. 468. (*M. minimus*.)
1884 K, pp. 309, 312. (*M. minimus*.)
1884 O, pp. 235, 238, pl. xxlii d, figs. 5, 6 (*Hyopsodus*); pp. 325, 327, pl. xxv e, figs. 22-24 (*M. minimus*.)
1884 S, p. 349. (*M. minimus*.)
1888 CC, p. 335.
Matthew, W. D. 1897 C, p. 317, fig. 18.
1899 A, p. 29.
Roger, O. 1896 A, p. 164. (*M. acolytus*, *M. minimus*.)
Schlosser, M. 1887 B, p. 221. (*M. minimus*.)
Scott, W. B. 1892 B, p. 323.

Trouessart, E. L. 1898 A, p. 719.
Eocene (Torrejon); New Mexico.
For Matthew's disposition of *M. minimus* see *Ellipsodon inaequidens*.

Mioclænus lemuroides Matth.

Matthew, W. D. 1892 C, p. 315, figs. 15, 16.
Cope, E. D. 1888 CC, p. 334. (*M. turgidunculus*, in part.)
Matthew, W. D. 1899 A, p. 29.
Trouessart, E. L. 1898 A, p. 719.
Eocene (Torrejon); New Mexico.

Mioclænus lydekkerianus Cope.

Cope, E. D. 1888 CC, p. 328. (Type specimen only, *Id.* Matthew.)
Matthew, W. D. 1897 C, pp. 264, 312, 313.
1899 A, p. 29.
Roger, O. 1896 A, p. 166. (Protogonodon.)
Scott, W. B. 1892 B, p. 322. (Protogonodon.)
Trouessart, E. L. 1898 A, p. 719.
Eocene (Torrejon); New Mexico.

Mioclænus turgidunculus Cope.

Cope, E. D. 1888 CC, p. 334. (In part, *Id.* Matthew.)
1888 CC, p. 334.
Matthew, W. D. 1897 C, pp. 264, 318.
1899 A, p. 28.
Roger, O. 1896 A, p. 164. (Protogonodon.)
Scott, W. B. 1892 B, p. 322.
Trouessart, E. L. 1898 A, p. 719.
Eocene (Puerco); New Mexico.

Mioclænus turgidus Cope.

Cope, E. D. 1881 U, p. 830.
1881 H, p. 489.
1884 K, p. 312.
1884 O, p. 325, pl. xxv e, figs. 19, 20; pl. lvii f, figs. 3, 4.

Cope, E. D. 1884 S, p. 349, fig. 15.
1888 CC, p. 334. (M. zittelianus.)
Earle, C. 1893 B, p. 379.
Matthew, W. D. 1897 C, pp. 264, 312.
1899 A, p. 29.
Osborn and Earle 1896 A, p. 50, fig. 17.
Pavlov, M. 1887 A, fig. 8.

Roger, O. 1896 A, p. 163 (M. turgidus); p. 164 (M. zittelianus).
Schlosser, M. 1887 B, p. 221.
Scott, W. B. 1892 B, p. 321. (M. turgidus, M. zittelianus.)
Trouessart, E. L. 1898 A, p. 719.
Eocene (Torrejon); New Mexico.

PROTOSELENE Matth. Type *Mioclanus opisthacus* Cope.

Matthew, W. D. 1897 C, p. 317.

Protoselene opisthaca (Cope).

Cope, E. D. 1882 EE, p. 833. (Mioclanus.)
1882 C, p. 467. (Hemithlaus.)
1882 EE, p. 853. (Mioclanus baldwini.)
1884 K, p. 312. (Mioclanus opisthacus, M. baldwini.)
1884 O, p. 407, pl. xxv f, figs. 8, 9 (Hemithlaus); pp. 325, 328, pl. xxv f, fig. 16 (Mioclanus baldwini).

Cope, E. D. 1888 CC, p. 332. (Mioclanus.)
Matthew, W. D. 1897 C, pp. 264, 317, figs. 19, 20.
1899 A, p. 29.
Roger, O. 1896 A, p. 164. (Mioclanus.)
Schlosser, M. 1887 B, p. 221. (Mioclanus baldwini.)
Trouessart, E. L. 1898 A, p. 720.
Eocene (Torrejon); New Mexico.

Suborder PERISSODACTYLA Owen.

Owen, R. 1848 A, p. 131.
Branco, W. 1897 A, p. 18.
Burmester, H. 1867 A, p. 237. (Imparidigitata.)
Cope, E. D. 1873 E, p. 562.
1873 F, p. 39.
1874 M.
1880 B, p. 467.
1881 G.
1881 I, p. 269.
1881 J.
1882 A.
1882 E, p. 177.
1882 Y.
1883 D. (Diplarthra, part.)
1884 O, pp. 379, 614 (Perissodactyla); pp. 167, 378, 613 (Diplarthra, part.)
1886 C, p. 615. (Diplarthra, part.)
1887 N.
1887 S.
1888 K, p. 163. (Diplarthra, part.)
1889 C, p. 148, *et seq.*
1889 R, p. 877.
1891 N, p. 84. (Diplarthra, part.)
1892 S.
1896 B, p. 125. (Diplarthra, part.)
Cope and Wortman 1884 A, p. 15.
Flower, W. H. 1876 B, xlii, p. 327.
1883 A.
1883 D, p. 427.
1885 A.
Flower and Lydekker 1891 A, p. 368.
Gadow, H. 1898 A, p. 46.
Gegenbaur, C. 1898 A.
Gill, T. 1872 A, p. 299.
1872 B, pp. 11, 71, 84.
Gruber, W. 1859 A.
Haeckel, E. 1895 A, p. 543.
Hay, O. P. 1899 F, p. 682.
Huxley, T. H. 1870 A, p. 440.
1872 A, p. 293.
Ledy, J. 1871 C, p. 356.
Leuthardt, F. 1891 A. (Mesaxonia.)
Lydekker, R. 1885 E, p. 469. (Diplarthra, part.)
1886 A, p. 1.

Lydekker, R. 1891 B.
1896 B.
Marsh, O. C. 1884 F, p. 177. (Clinodactyla, Mesaxonia.)
1892 C, p. 349. (Mesaxonia.)
Nicholson and Lydekker 1889 A, p. 1382.
Osborn, H. F. 1890 D, pp. 505, 541, 559.
1893 A, p. 379.
1893 D.
1896 I, p. 79.
1900 C, p. 568.
Osborn and Wortman 1892 A.
Owen, R. 1845 B, p. 572. ("Isodactyle Ungulata.")
1857 A.
1866 B, p. 441.
1868 A, p. 352.
Paulli, S. 1900 A, p. 181.
Pavlov, M. 1887 A.
Roger, O. 1896 A, p. 168.
Röse, C. 1896 A.
Rütimeyer, L. 1865 A. (Imparidigitata.)
1888 A. (Diplarthra, part.)
Schlosser, M. 1885 A.
1886 A, p. 252.
1886 B.
1887 A.
1888 A.
1889 A.
1890 C.
1890 D.
1892 A.
Schmidt, O. 1886 A, p. 189.
Scott, W. B. 1892 A, p. 430.
Steinmann and Döderlein 1890 A, p. 765.
Tornier, G. 1888 A, p. 299.
Turner, H. N. 1848 A.
Weber, M. 1886 A, p. 226.
Wiedersheim, R. 1881 A, p. 360. (Perissodactyli.)
Woodward, A. S. 1898 B, p. 319.
Wortman, J. L. 1883 A, p. 706.
1885 A, p. 297. (Diplarthra, part.)
1893 B, p. 208. (Diplarthra, part.)
Zittel, K. A. 1893 B, pp. 224, 726.

Superfamily EQUOIDEA.

Gill, T. 1872 B, p. 87. (Solidungula.)

| Osborn, H. F. 1898 I, p. 79. (Hippoidae.)

EQUIDÆ.

Ameghino, F. 1889 A, p. 502.

1891 A.

Boule, M. 1899 A, p. 531. ("Équidés.")

Branco, W. 1897 A, p. 18.

Cope, E. D. 1874 M.

1881 G, pp. 378, 380, 400.

1881 O. (Equidæ, Anchitheriidae.)

1884 O, pp. 615, 715, 716.

1887 N.

1889 C.

1892 S.

1893 A.

Cope and Wortman 1884 A, p. 26.

Cornevin, C. 1882 A.

Cuvier, G. 1834 A, III, pp. 198-220, with plates.

Ewart, J. C. 1894 A.

1894 B.

Farr, M. S. 1896 A.

Flower, W. H. 1876 B, xiii, p. 306.

1876 C, p. 109.

Flower and Lydekker 1891 A, p. 376.

Gadow, H. 1898 A, p. 47.

George, —, 1869 A.

Gervais, P. 1874 A.

Gray, J. E. 1869 A, p. 262.

Haeckel, E. 1895 A, p. 547. (Hippotherida.)

Huxley, T. H. 1870 A, p. 439.

1870 B, p. xlix.

1872 A, p. 296.

1876 B, xiv, p. 34.

1880 B, p. 649.

Klever, E. 1889 A.

Kowalevsky, W. 1873 B.

Leidy, J. 1869 A, p. 302. (>Anchitheriidae.)

1871 C, p. 359. (Equidae, Anchitheriidae.)

Lydekker, R. 1882 A.

1886 A, p. 49.

1886 D, p. 326.

1891 B.

Major, F. 1873 A, p. 109.

Major, F. 1877 A.

1880 A.

Marsh, O. C. 1877 E.

1892 C, p. 339.

Matthew, W. D. 1899 A, p. 22, *et seq.*

Nicholson and Lydekker 1889 A, p. 1359.

Osborn, H. F. 1893 D, p. 37.

1898 I, p. 79.

Osborn and Wortman 1892 A, p. 128.

Owen, R. 1845 B, p. 572.

1870 B.

1878 C, p. 218.

Pavlov, M. 1888 A, p. 134.

1890 A.

Ridewood, W. G. 1895 A.

Roger, O. 1889 A.

1896 A, p. 168.

Rütimeyer, L. 1862 A.

1875 A.

1888 A, p. 16.

Ryder, J. 1877 A.

Schlosser, M. 1886 A. (Hippidae.)

1886 B.

Schmidt, O. 1886 A, p. 201.

Scott, W. B. 1896 B.

1891 B.

1895 C, p. 78.

Slade, D. D. 1893 A.

Steinmann and Döderlein 1890 A, p. 778.

Tornier, G. 1888 A, p. 301.

Trouessart, E.-L. 1896 A, p. 783.

Tscherski, J. D. 1892 A, p. 257.

Weyhe, —, 1875 A, p. 121.

Wilckens, M. 1884 A.

1884 B.

1885 A.

1888 A.

Woodward, A. S. 1896 B, p. 337.

Wortman, J. L. 1882 B.

Zittel, K. A. 1893 B, pp. 231, 259.

HYRACOTHERIINÆ.

Branco, W. 1897 A, p. 18.

Cope, E. D. 1881 G, p. 381.

1884 O, p. 618.

1886 K. (Hyracotheriidae.)

1887 N, p. 994.

1889 C, p. 162 *et seq.*

Haeckel, E. 1895 A, p. 548. (Hyracotherida.)

Marsh, O. C. 1892 C, p. 352. (>Orohippidae.)

Osborn, H. F. 1893 D, p. 37. (Systemodontinae, in part.)

Osborn and Wortman 1892 A, p. 93.

Roger, O. 1896 A, p. 168.

Rütimeyer, L. 1888 A, p. 27.

Steinmann and Döderlein 1890 A, p. 769. (Hyracotheriidae.)

Wortman, J. L. 1896 A.

Wortman and Earle 1893 A. (Systemodontinae, in part.)

Zittel, K. A. 1893 B, p. 239.

Eohippus Marsh. Type *E. validus* Marsh.

Marsh, O. C. 1876 H, p. 401.

Since many writers regard Marsh's genus *Eohippus* as a synonym, or at most a subgenus of *Hyracotherium* Owen, and refer to the American species under the latter name, the literature of both genera is included in the following citations. Unless otherwise indicated the authors in this list employ the term *Hyracotherium*.

Ameghino, F. 1896 A, p. 410.

Cope, E. D. 1877 K, p. 258.

1881 G, p. 381.

1881 Y. (Systemodon, type *Hyracotherium tapirinum*.)

1883 B, p. 276.

1884 O, pp. 618, 624. (Hyracotherium, Systemodon.)

1886 K. (Hyracotherium, Systemodon.)

- Cope, E. D. 1887 I.
1887 N, p. 994 (Hyracotherium, Systemodon.
1889 C.
1892 S, p. 471.
Earle, C. 1893 C p. 393. (Hyracotherium, Systemodon.)
1896 A.
Flower and Lydekker 1891 A, pp. 373, 374. (Hyracotherium, Systemodon.)
Kowalevsky, W. 1873 A, p. 205.
Landois, — 1881 A, p. 127.
Leuthardt, F. 1891 A. (Hyracotherium.)
Lydekker, R. 1886 A, p. 10.
1886 D, p. 526.
Marsh, O. C. 1877 E, p. 358.
1879 D, p. 504.
1892 C, p. 351. (Eohippus, Hyracotherium.)
1898 E, p. 568.
Matthew, W. D. 1897 C, p. 309.
1899 A, p. 33.
Nicholson and Lydekker 1889 A, pp. 1856, 1880. (Hyracotherium, Systemodon.)
Owen, R. 1844 A, p. 226.
1857 C, p. 65.
Osborn, H. F. 1890 A.
1890 B, p. 274.
1890 D, p. 505.
1893 D.
Osborn and Wortman 1892 A, pp. 88, 93 (Hyracotherium); p. 124 (Systemodon).
Pavlov, M. 1887 A, p. 350.
1888 A. (Eohippus, Systemodon.)
1900 A, p. 46.
Rütimeyer, L. 1862 A, p. 577.
1891 A, p. 45.
Schlosser, M. 1886 A, pp. 252, 432. (Hyracotherium, Systemodon.)
1886 B. (Hyracotherium, Eohippus, Systemodon.)
1887 A.
Scott, W. B. 1886 B.
1892 A, p. 430. (Systemodon.)
Steinmann and Döderlein 1890 A, p. 770.
Tomes, C. S. 1898 A, p. 412. (Hyracotherium.)
Trouessart, E. L. 1898 A, p. 770 (Hyracotherium); p. 771 (Eohippus, subgenus); p. 772 (Pliolophus, subgenus).
Wilckens, M. 1886 B, p. 210.
Woodward, A. S. 1896 B, p. 323.
Wortman, J. L. 1882 B, vi, p. 68.
1883 A, p. 709.
1886 A, p. 477. (Hyracotherium, Eohippus.)
1893 B.
1896 A. (Hyracotherium, Systemodon.)
Wortman and Earle, 1893 A. (Hyracotherium, Systemodon.)
Zittel, K. A. 1893 B, p. 239 (Hyracotherium); p. 277 (Systemodon).

Eohippus craspedotus (Cope).

- Cope, E. D. 1880 N, p. 747. (Hyracotherium.)
1881 D, p. 199. (Hyracotherium.)
1882 E, p. 186. (Hyracotherium.)
1884 O, p. 631, pl. lviii, figs. 1, 2. (Hyracotherium.)
1887 I, p. 656. (Hyracotherium.)

- Matthew, W. D. 1899 A, p. 36. (Hyracotherium.)
Roger, O. 1896 A, p. 169. (Hyracotherium.)
Trouessart, E. L. 1898 A, p. 771. [Hyracotherium (Eohippus).]
Wortman, J. L. 1896 A, p. 97, pl. ii, fig. M, text fig. 7. (Hyracotherium.)
Eocene (Wind River); Wyoming.

Eohippus cristatus (Wort.).

- Wortman, J. L. 1896 A, p. 96, pl. ii, fig. H; text fig. 6. (Hyracotherium.)
Matthew, W. D. 1899 A, p. 38. (Hyracotherium.)
Trouessart, E. L. 1898 A, p. 771. [Hyracotherium (Eohippus).]
Eocene (Wasatch); Wyoming.

Eohippus index (Cope).

- Cope, E. D. 1873 D, p. 4. (Orotherium.)
Allen, H. 1886 B. (Hyracotherium cuspidatum, Pliolophus vintanus.)
Cope, E. D. 1873 U, p. 3. (Orotherium vasaccense.)
1874 B, p. 459. (Orotherium.)
1875 C, p. 20 (Orohippus index); p. 18 (Orotherium vintanus); pp. 20, 21 (Orohippus angustidens); p. 22 (O. cuspidatus).
1877 K, p. 262 (Orohippus index); p. 255, pl. lxx, figs. 1-12 (Orotherium vintanus); pp. 262, 265, pl. lxxi, figs. 1-6 (Hyracotherium angustidens); pp. 262, 267, pl. lxxv, fig. 18 (Hyracotherium cuspidatum); p. 264, pl. lxxvi, figs. 7-11 (Hyracotherium vasaccense).
1880 N, p. 747. (Hyracotherium angustidens, H. vasaccense.)
1881 D, p. 198. (Hyracotherium angustidens.)
1882 E, p. 186 (Hyracotherium angustidens, H. vasaccense, H. venticolum); pp. 179, 181, pl. xxv, fig. 17, premolars (Phenacodus laticuneus).
1884 O, pp. 630, 650 (Hyracotherium index); pp. 630, 643, pl. xlix, fig. 16 (Hyracotherium angustidens); p. 631 (Hyracotherium cuspidatum); pp. 630, 634 (Hyracotherium vasaccense, in part).
Kling, C. 1878 A, p. 377. (Eohippus angustidens, E. cuspidatus.)
Lydekker, R. 1886 A, p. 12, fig. 3. (Hyracotherium angustidens.)
Matthew, W. D. 1899 A, p. 30, footnote; p. 33. (Hyracotherium.)
Pavlov, M. 1888 A, pl. i, fig. 10. (Hyracotherium angustidens.)
Roger, O. 1896 A, p. 169 (Hyracotherium angustidens); p. 171 (Epihippus cuspidatus).
Trouessart, E. L. 1898 A, p. 771 [Hyracotherium (Eohippus)]; p. 776 (Epihippus).
Wortman, J. L. 1896 A, p. 99, pl. ii, fig. L; text figs. 9, 10. (Hyracotherium.)
Eocene (Wasatch); New Mexico, Wyoming.

Eohippus pernix Marsh.

- Marsh, O. C. 1876 H, p. 402.
Kling, C. 1878 A, p. 377.
Marsh, O. C. 1892 C, p. 349, figs. 14, 15.
Matthew, W. D. 1899 A, p. 33. (Syn. of Hyracotherium index.)

Pavlov, M. 1888 A, p. 145.

Roger, O. 1896 A, p. 169.

Trouessart, E. L. 1898 A, p. 772. [*Hyracotherium* (*Eohippus*).]

Wortman, J. L. 1896 A, p. 82. (Syn.? of *Hyracotherium* index.)

Eocene (Wasatch); Wyoming.

***Eohippus tapirinus* (Cope).**

Cope, E. D. 1875 C, p. 20. (*Orohippus*.)

1877 K, p. 263, pl. lxvi, figs. 12-16. (*Hyracotherium*.)

1881 Y. (Systemodon.)

1882 E, p. 183. (Systemodon.)

1884 O, p. 619, pl. lvi, figs. 1, 2. (Systemodon.)

1887 N, p. 999, fig. 8. (Systemodon.)

Hay, O. P. 1899 A, p. 593. (*Hyracotherium*.)

King, C. 1878 A, p. 377.

Matthew, W. D. 1899 A, p. 33. (*Hyracotherium*.)

Osborn and Wortman 1892 A, p. 125, fig. 17, only part, if any. (Systemodon.)

Pavlov, M. 1888 A, p. 174. (Systemodon.)

Roger, O. 1896 A, p. 183. (Systemodon.)

Scott, W. B. 1892 A, p. 430. (Systemodon.)

Trouessart, E. L. 1898 A, p. 771. [*Hyracotherium* (*Eohippus*).]

Woodward, A. S. 1898 B, p. 323, fig. 183.

Wortman, J. L. 1896 A, p. 94, pl. ii, fig. K, text figs. 4, 5. (*Hyracotherium*.)

Wortman and Earle 1893 A, p. 170. (Systemodon.)
Eocene (Wasatch); Wyoming, New Mexico.

***Eohippus validus* Marsh.**

Marsh, O. C. 1876 H, p. 401.

King, C. 1878 A, p. 377.

Matthew, W. D. 1899 A, p. 33. (Syn. of *E. vasacciensis*.)

Roger, O. 1896 A, p. 169.

Trouessart, E. L. 1898 A, p. 772. [*Hyracotherium* (*Eohippus*).]

Wortman, J. L. 1896 A, p. 82. (Syn.? of *Hyracotherium vasaccense*.)

Eocene (Wasatch); New Mexico.

***Eohippus vasacciensis* (Cope).**

Cope, E. D. 1872 O, p. 474. (*Notharctus*.)

1872 E, p. 471. (*Notharctus vasacciensis*.)

1873 E, pp. 606, 646. (*Orotherium*.)

1873 U, p. 3. (*Orotherium*.)

1875 C, p. 21. (*Orohippus*.)

1884 O, p. 634. (*Hyracotherium*.)

King, C. 1878 A, p. 376. (*Orohippus*.)

Matthew, W. D. 1899 A, p. 33. (*Hyracotherium*.)

Roger, O. 1896 A, p. 169.

Trouessart, E. L. 1898 A, p. 771. [*Hyracotherium* (*Eohippus*).]

Wortman, J. L. 1896 A, p. 98, pl. ii, fig. G; text fig. 8. (*Hyracotherium*.)

Eocene (Wasatch); Wyoming.

PLIOLOPHUS Owen. Type *P. vulpiceps* Owen.

Owen, R. 1857 C, p. 54, pls. ii-iv.

Cope, E. D. 1881 G, p. 381.

1884 O, pp. 618, 650.

1887 N, pp. 994, 997.

1892 S, p. 411.

Earle, C. 1896 A.

Owen, R. 1860 E, p. 326.

Wortman, J. L. 1896 A, pp. 83, 102.

Zittel, K. A. 1893 B, pp. 239, 243. (Syn. of *Hyracotherium*.)

It is doubtful whether the American species belong to this genus or to *Eohippus*; indeed, the genus itself is of doubtful validity.

***Pliolophus cristonensis* Cope.**

Cope, E. D. 1877 K, p. 254, pl. lxv, figs. 13, 14. (*Orotherium*.)

1875 C, pp. 20, 21. (*Orohippus major*, not of Marsh.)

1877 K, p. 257, pl. lxv, figs. 15-17. (*Orotherium laevii*.)

Cope, E. D. 1884 O, p. 651. (*P. cristonensis*, P. laevii.)

Matthew, W. D. 1899 A, p. 33. (*Hyracotherium*.)

Roger, O. 1896 A, p. 170. (*Pachynolophus*.)

Trouessart, E. L. 1898 A, p. 772. [*Hyracotherium* (*Pliolophus*).]

Wortman, J. L. 1896 A, p. 102, pl. ii, figs. i, i', text figs. 11, 12. [*Hyracotherium* (*Pliolophus*).]

Zittel, K. A. 1893 B, p. 243, fig. 180. (*Pachynolophus*.)

Eocene (Wasatch); New Mexico, Wyoming.

***Pliolophus montanus* Wort.**

Wortman, J. L. 1896 A, p. 103, pl. ii, fig. J; text fig. 13. [*Hyracotherium* (*Pliolophus*).]

Matthew, W. D. 1899 A, p. 33.

Trouessart, E. L. 1898 A, p. 772. [*Hyracotherium* (*Pliolophus*).]

Eocene (Wasatch); Wyoming.

PROTOROHIPIPPUS Wortman. Type *Hyracotherium venticolum* Cope.

Wortman, J. L. 1896 A, pp. 91, 104.

Osborn, H. F. 1897 G, p. 258.

***Protorohippus venticolus* (Cope).**

Cope, E. D. 1881 D, p. 198. (*Hyracotherium*.)

Unless otherwise indicated, the following authors refer this species to *Hyracotherium*.

Cope, E. D. 1884 O, pp. 630, 635, pl. xlix a, figs. 1-15; pls. xlix b, xlix c.

Cope, E. D. 1887 N, p. 995, pl. xxx, text figs. 5-7.

1887 S, p. 270, pl. vi, figs. 1, 2.

1888 T.

1889 C, p. 159.

Matthew, W. D. 1899 A, p. 36. (*Protorohippus*.)

Osborn, H. F. 1896 C, p. 708, illus. 4.

1898 Q, pp. 10, 15.

Pavlov, M. 1887 A.

1888 A, p. 114, pl. i, figs. 1, 9.

- Roger, O. 1896 A, p. 168.
 Rüttmeyer, L. 1888 A, p. 15.
 Schlosser, M. 1886 B, pl. v, fig. 32; pl. vi, fig. 34.
 (Hyracotherium.)
 Woodward, A. S. 1898 B, p. 324, fig. 184. (Hyracotherium.)

- Wortman, J. L. 1883 A, p. 709, figs. 128-130.
 1896 A, p. 105, pl. ii, fig. N; text figs. 14, 15.
 (Protorohippus.)
 Zittel, K. A. 1893 B, p. 240, figs. 174, 175.
 Eocene (Wind River); Wyoming, Colorado.

HELOHIPPUS Marsh. Type *Lophiodon pumilus* Marsh.

Marsh, O. C. 1892 C, p. 353.

Helohippus pumilus Marsh.

- Marsh, O. C. 1871 D, p. 38. (Lophiodon.)
 Leidy, J. 1872 B, p. 362. (Lophiodon.)

- Leidy, J. 1872 C, p. 20. (Lophiodon.)
 Marsh, O. C. 1892 C, p. 358.
 Matthew, W. D. 1899 A, p. 45.
 Roger, O. 1896 A, p. 169.
 Eocene (Bridger); Wyoming.

OROHIPPUS Marsh. Type *O. pumilis* Marsh.

- Marsh, O. C. 1872 I, p. 207.
 Cope, E. D. 1872 N, p. 466. (Helotherium, type *H. procyoninus*.)
 1873 E, p. 606 (Orohippus); p. 607 (Oligotomus).
 1873 U, p. 2. (Oligotomus, type *O. cinctus*.)
 1874 M. (Syn. of Hipposyus.)
 1875 C, pp. 13, 18, 20 (Orotherium); p. 19 (Orohippus).
 1877 K, p. 258 (Syn. of Hyracotherium); p. 252 (Orotherium).
 1887 N, pp. 997, 1074. (Syn. of Pilolophus.)
 1892 S, p. 411.

- Dana, J. D. 1896 A, p. 913, fig. 1540.
 Farr, M. S. 1896 A, p. 157. (Syn. of Pachynolophus.)
 Flower, W. H. 1876 B, xlii, p. 327.
 Flower and Lydekker 1891 A, p. 374. (Syn. of Pachynolophus.)
 Gaudry, A. 1878 B, p. 142.
 Huxley, T. H. 1876 B, xiv, p. 34.
 1876 C, p. 294.
 Landois, — 1881 A, p. 128.
 Leidy, J. 1871 C, p. 358. (Lophiotherium.)
 1873 B, p. 69. (Lophiotherium.)
 Lydekker, R. 1886 A, p. 10. (Syn. of Hyracotherium.)
 Marsh, O. C. 1872 I, p. 217. (Orotherium, type *O. uintanum*.)
 1873 H, p. 407.
 1874 B, p. 247.
 1874 D, p. 66.
 1876 G.
 1877 E.
 1879 D, p. 504.
 1892 C, p. 348.
 1898 E, p. 568.

- Nicholson and Lydekker 1889 A, p. 1356.
 Osborn, H. F. 1890 D, p. 506. (Syn. of Pilolophus.)
 Osborn, Scott, and Speir 1878 A, p. 17 (Oligotomus); p. 24 (Orohippus).
 Schlosser, M. 1886 B, p. 13. (Orotherium.)
 Scott, W. B. 1891 B, p. 302.
 Tomes, C. S. 1898 A, p. 415.
 Welthofer, A. 1888 A, p. 278.
 Wortman, J. L. 1883 A, p. 709. (Syn. of Hyracotherium.)
 1896 A, pp. 92, 93, 108, fig. 18; pl. ii, fig. E.
 Zittel, K. A. 1893 B, p. 242. (Syn. of Pachynolophus.)

Orohippus agilis Marsh.

- Marsh, O. C. 1873 H, p. 407.
 Cope, E. D. 1875 C, p. 22.
 1877 K, p. 267. (Hyracotherium.)
 Gaudry, A. 1878 B, p. 143.
 King, C. 1878 A, p. 404.
 Marsh, O. C. 1874 B, pp. 248, 255, figure.
 1892 C, p. 349, figs. 16, 17.
 Matthew, W. D. 1899 A, p. 45.
 Osborn, H. F. 1890 D, p. 606. (Ephippus.)
 Roger, O. 1896 A, p. 171. (Ephippus.)
 Trouessart, E. L. 1898 A, p. 777. (Ephippus.)
 Eocene (Bridger); Wyoming; Eocene (Uinta); New Mexico.

Orohippus ballardi (Marsh).

- Marsh, O. C. 1871 D, p. 39. (Lophiotherium.)
 Leidy, J. 1872 B, p. 365. (Lophiotherium.)
 Marsh, O. C. 1872 I, p. 217. (Lophiotherium.)
 Roger, O. 1896 A, p. 170. (Pachynolophus.)
 Eocene (Bridger); Wyoming.

Orohippus cinctus (Cope).

- Cope, E. D. 1873 U, p. 2. (Oligotomus.)
 1873 E, p. 607. (Oligotomus.)
 1884 O, p. 653, pl. xxiv, fig. 26. (Pilolophus.)
 Matthew, W. D. 1899 A, p. 45. (Oligotomus.)
 Osborn, Scott, and Speir 1878 A, p. 17. (Oligotomus.)
 Roger, O. 1896 A, p. 170. (Pachynolophus.)
 Trouessart, E. L. 1898 A, p. 774.
 Wortman, J. L. 1896 A, p. 108.
 Eocene (Bridger); Wyoming.

Orohippus major Marsh.

- Marsh, O. C. 1874 B, p. 248.
 Matthew, W. D. 1899 A, p. 45.
 Osborn, H. F. 1890 D, p. 544, figures. (Pilolophus.)
 Osborn, Scott, and Speir 1878 A, p. 24, pl. ix, figs. 1-7. (Identification doubtful.)
 Trouessart, E. L. 1898 A, p. 772.
 Eocene (Bridger); Wyoming.

Orohippus osbornianus (Cope).

- Cope, E. D. 1884 O, pp. 630, 647, pl. xxiv, fig. 23. (Hyracotherium.)
 1873 E, p. 607. (Orotherium sylvaticum, not Lophiotherium sylvaticum of Leidy.)

Cope, E. D. 1873 U, p. 2. (*Orotherium sylvaticum*.)

1877 K, p. 262. (*Hyracotherium sylvaticum*.)

Matthew, W. D. 1899 A, p. 45. (*Hyracotherium*.)

Roger, O. 1896 A, p. 169. (*Hyracotherium*.)

Trouessart, E. L. 1896 A, p. 774.

Eocene (Bridger); Wyoming.

Orohippus procyoninus Cope.

Cope, E. D. 1872 N, p. 466. (*Helotherium*.)

1873 E, p. 606.

1875 C, pp. 20, 22.

1877 K, pp. 262, 266. (*Hyracotherium*.)

1884 O, pp. 631, 711, pl. xxiv, fig. 22. (*Lambdotherium*.)

1887 S, p. 45. (*Lambdotherium*.)

Marsh, O. C. 1873 K, p. 249. (Syn.? of *O. pumilis*.)

Matthew, W. D. 1899 A, p. 45. (*Hyracotherium*.)

Roger, O. 1896 A, p. 193. (*Lambdotherium*.)

Eocene (Bridger); Wyoming.

Orohippus pumilis Marsh.

Marsh, O. C. 1872 I, p. 207.

Cope, E. D. 1873 E, p. 606. (Syn. of *O. procyoninus*.)

1875 C, p. 22. (Syn. of *O. procyoninus*.)

1877 K, p. 266. (Syn.? of *Hyracotherium procyoninum*.)

EPIHIPPIUS Marsh. Type *E. gracilis* Marsh.

Marsh, O. C. 1878, Pop. Sci. Month., p. 678.

Cope, E. D. 1887 N, pp. 1061, 1063.

1890 C, p. 470.

1892 S, p. 411.

Flower and Lydekker 1891 A, p. 374.

Marsh, O. C. 1879 D, p. 504. (No definition.)

1892 C, p. 353.

1898 E, p. 568.

Matthew, W. D. 1899 A, p. 49.

Nicholson and Lydekker 1891 A, p. 1358.

Osborn, H. F. 1890 D, pp. 506, 529.

Schlosser, M. 1896 B, p. 14.

Steinmann and Döderlein 1890 A, p. 780.

Wortman, J. L. 1896 A, p. 92.

Zittel, K. A. 1893 B, p. 244.

Epihippus gracilis Marsh.

Marsh, O. C. 1871 D, p. 38. (*Anchitherium*.)

1878, in King, C. 1878 A, p. 407.

1874 B, p. 249. (*Orohippus*.)

Marsh, O. C. 1874 B, p. 249.

Matthew, W. D. 1899 A, p. 45.

Osborn, Scott, and Speir 1878 A, p. 24.

Roger, O. 1896 A, p. 170. (*Pachynolophus*.)

Trouessart, E. L. 1896 A, p. 773.

Eocene (Bridger); Wyoming.

Orohippus sylvaticus (Leidy).

Leidy, J. 1870 T, p. 126. (*Lophiotherium*.)

Cope, E. D. 1884 O, pp. 631, 647, 652. (*Phliolophus*.)

Leidy, J. 1871 C, p. 358. (*Lophiotherium*.)

1872 B, p. 364. (*Lophiotherium*.)

1873 B, pp. 69, 327, pl. vi, figs. 33-35. (*Lophiotherium*.)

Matthew, W. D. 1899 A, p. 45.

Roger, O. 1896 A, p. 170. (*Pachynolophus*.)

Trouessart, E. L. 1896 A, p. 773.

Eocene (Bridger); Wyoming.

Orohippus uintanus (Marsh).

Marsh, O. C. 1872 I, p. 217. (*Orotherium*.)

Cope, E. D. 1881 D, p. 199. (*Orotherium*.)

1884 O, p. 651. (*Phliolophus vintanus*.)

Matthew, W. D. 1899 A, p. 45.

Roger, O. 1896 A, p. 170. (*Pachynolophus*.)

Trouessart, E. L. 1896 A, p. 777, in part. (*Epihippus uintensis*.)

Eocene (Bridger); Wyoming.

Matthew, W. D. 1899 A, p. 49.

Roger, O. 1896 A, p. 171 (*Epihippus*); p. 174 (*Mesohippus*?).

Scott and Osborn 1887 A, p. 259.

Trouessart, E. L. 1896 A, p. 777 (*Epihippus*); p. 781 (*Mesohippus*).

Eocene (Uinta); Utah.

Epihippus uintensis Marsh.

Marsh, O. C. 1875 B, p. 247. (*Orohippus*.)

1878, in King, C. 1878 A, p. 407.

Matthew, W. D. 1899 A, p. 49.

Osborn, H. F. 1890 D, p. 529, pl. xi, figs. 3, 5.

1895 A, p. 98.

Roger, O. 1896 A, p. 171.

Scott and Osborn 1887 A, p. 259.

Trouessart, E. L. 1896 A, p. 777, in part.

Zittel, K. A. 1893 B, p. 245, fig. 184.

Eocene (Uinta); Utah.

MIOHIPPIUS Marsh. Type *M. annectens* Marsh.

Marsh, O. C. 1874 B, p. 249.

Ameghino, F. 1896 A, p. 442. (*Mesohippus*.)

Cope, E. D. 1874 B, p. 496. (*Anchitherium*.)

1881 G, p. 399. (*Mesohippus*.)

1884 O, p. 714. (*Anchitherium*.)

1887 N, p. 1067. (*Mesohippus*.)

1892 S, p. 412. (*Miohippus*.)

1894 D, p. 791. (*Mesohippus*, *Miohippus*.)

Dana, J. D. 1896 A, p. 913, fig. 1540. (*Miohippus*, *Mesohippus*.)

Farr, M. S. 1896 A, p. 150. (*Mesohippus*.)

Huxley, T. H. 1876 C, pp. 292, 294. (*Miohippus*, *Mesohippus*.)

Landois, — 1881 A, p. 128 (*Protohippus*); p. 29 (*Mesohippus*).

Lydekker, R. 1886 A, p. 45. (*Mesohippus*.)

Marsh, O. C. 1874 D, p. 66. (*Miohippus*.)

1875 B, p. 248. (*Mesohippus*, type *Anchitherium bairdi*.)

1876 G, p. 61. (*Mesohippus*.)

1877 E, p. 359. (*Miohippus*, *Mesohippus*.)

1879 D, p. 504. (*Miohippus*, *Mesohippus*.)

1892 C, p. 354. (*Miohippus*, *Mesohippus*.)

1898 E, p. 568. (*Miohippus*, *Mesohippus*.)

Nicholson and Lydekker 1889 A, p. 1358 (*Mesohippus*); p. 1359 (*Miohippus*).

Osborn, H. F. in Scott and Osborn 1890 B, p. 87. (Mesohippus.)

Osborn and Wortman 1896 A, p. 352. (Mesohippus.)
Pavlow, M. 1888 A. (Mesohippus.)

Schlosser, M. 1886 B, p. 14. (Miohippus and Mesohippus, syns. of Anchitherium.)

Scott, W. B. 1886 B. (Miohippus, Mesohippus.)
1891 B. (Mesohippus.)

1893 B, p. 660. (Miohippus, Mesohippus.)

1896 C, p. 79. (Miohippus, Mesohippus.)

Scott and Osborn 1887 B, p. 171. (Mesohippus.)
1890 B, p. 87. (Mesohippus.)

Steinmann and Döderlein 1890 A, p. 781. (Mesohippus.)

Tomes, C. S. 1898 A, p. 415.

Weithofer, A. 1888 A, p. 278.

Woodward, A. S. 1898 B, p. 628. (Mesohippus.)

Wortman, J. L. 1883 A, p. 710. (Anchitherium.)
1893 A. (Mesohippus.)

Zittel, K. A. 1893 B, p. 249. (Mesohippus.)

Miohippus agrestis (Leidy).

Leidy, J. 1873 B, pp. 251, 323, pl. vii, figs. 16, 17. (Anchitherium.)

Cope, E. D. 1874 B, p. 498. (Anchitherium.)

Matthew, W. D. 1899 A, p. 56. (Syn. of Anchipus texanus.)

Roger, O. 1896 A, p. 174. (Mesohippus.)

Trouessart, E. L. 1898 A, p. 781. (Mesohippus.)
Miocene; Montana.

Miohippus anceps Marsh.

Marsh, O. C. 1874 B, p. 250. (Anchitherium.)

Cope, E. D. 1886 H, p. 368. (Syn.? of Anchitherium equiceps.)

King, C. 1878 A, p. 424.

Marsh, O. C. 1892 C, p. 350, figs. 20, 21.

Matthew, W. D. 1899 A, p. 63. (Mesohippus.)

Roger, O. 1896 A, p. 174.

Scott, W. B. 1893 B, p. 659.
1896 C, p. 118.

Trouessart, E. L. 1898 A, p. 781.

Zittel, K. A. 1893 B, p. 250, fig. 194. (Anchitherium.)

Miocene (John Day); Oregon.

Miohippus annectens Marsh.

Marsh, O. C. 1874 B, p. 249.

King, C. 1878 A, p. 424.

Marsh, O. C. 1894 F, p. 91.

Matthew, W. D. 1899 A, pp. 56, 63. (Mesohippus.)

Roger, O. 1896 A, p. 174.

Scott, W. B. 1893 B, p. 659.

1896 C, p. 80, pl. i, figs. 6-8. (M. annectens?)

Trouessart, E. L. 1898 A, p. 781.

Oligocene? (White River); Montana?; Miocene (John Day); Oregon.

Miohippus australis (Leidy).

Leidy, J. 1873 B, pp. 250, 323, pl. xx, fig. 19. (Anchitherium.)

Cope, E. D. 1898 A, p. 23. (Anchitherium.)

Matthew, W. D. 1899 A, p. 69. (Syn. of Anchipus texanus.)

Roger, O. 1896 A, p. 174. (Mesohippus.)

Trouessart, E. L. 1898 A, p. 781. (Mesohippus.)

Miocene (Loup Fork); Texas.

Miohippus bairdi (Leidy).

Leidy, J. 1850 C, p. 122. (Palæotherium.)

Cope, E. D. 1873 CC, p. 14. (Anchitherium.)

1874 B, p. 496. (Anchitherium.)

1879 D, p. 75. (Anchitherium.)

Farr, M. S. 1896 A, pl. xiii, text figs. 1-4. (Mesohippus.)

Hayden, F. V. 1858 B, p. 158. (Anchitherium.)

King, C. 1878 A, p. 412. (Mesohippus.)

Leidy, J. 1852 J, p. 572. (Anchitherium.)

1852 L, p. 64. (Palæotherium.)

1854 A, p. 67, pl. x, figs. 14-21; pl. xi. (Anchitherium.)

1869 A, pp. 333, 402, pl. xx. (Anchitherium.)

1870 F, p. 112. (Anchitherium.)

1871 C, p. 362. (Anchitherium.)

1873 B, pp. 218, 322, pl. vii, fig. 15. (Anchitherium.)

Lydekker, R. 1886 A, p. 49. (Anchitherium.)

Marsh, O. C. 1874 B, p. 250. (Anchitherium.)

1875 B, p. 248. (Mesohippus.)

Matthew, W. D. 1899 A, p. 55. (Mesohippus.)

Nicholson and Lydekker 1889 A, p. 1359. (Mesohippus.)

Osborn, H. F. 1896 B, p. 174. (Titanotherium.)

Osborn and Wortman 1894 A, p. 213. (Mesohippus.)
1895 A, p. 353. (Mesohippus.)

Pavlow, M. 1888 A, p. 148, pl. i, figs. 4, 13. (Anchitherium.)

Roger, O. 1896 A, p. 173. (Mesohippus.)

Scott, W. B. 1891 B, pls. xxii, xxiii.

Scott and Osborn 1887 B, p. 171. (Mesohippus.)

1890 B, p. 87, figs. 10, 11. (Mesohippus.)

Trouessart, E. L. 1898 A, p. 780. (Mesohippus.)

Zittel, K. A. 1893 B, p. 250, fig. 191. (Mesohippus.)
Oligocene (White River); South Dakota, Nebraska, Colorado, Oregon?

Miohippus brachylophus (Cope).

Cope, E. D. 1879 D, p. 74. (Anchitherium.)

1879 B, p. 58. (Anchitherium.)

1894 D. (Anchitherium or Miohippus.)

Matthew, W. D. 1899 A, p. 63. (Mesohippus.)

Roger, O. 1896 A, p. 174.

Trouessart, E. L. 1898 A, p. 781.

Miocene (John Day); Oregon.

Miohippus celer Marsh.

Marsh, O. C. 1874 B, p. 251. (Anchitherium.)

Cope, E. D. 1874 B, p. 497. (Anchitherium.)

King, C. 1878 A, p. 412. (Mesohippus.)

Marsh, O. C. 1875 B, p. 248. (Mesohippus.)

1892 C, p. 350, figs. 18, 19. (Mesohippus.)

1897 C, p. 524, fig. 101.

Matthew, W. D. 1899 A, p. 56. (Mesohippus.)

Osborn and Wortman 1895 A, p. 353. (Mesohippus.)

Roger, O. 1896 A, p. 174.

Trouessart, E. L. 1898 A, p. 780. (Mesohippus.)

Zittel, K. A. 1893 B, p. 250, fig. 192. (Mesohippus.)

Oligocene (White River); Colorado?

Miohippus condoni (Leidy).

Leidy, J. 1870 F, p. 112. (Anchitherium.)

Cope, E. D. 1879 D, p. 76. (Anchitherium.)

King, C. 1878 A, p. 424.

Leidy, J. 1871 C, p. 362. (Anchitherium.)

1871 J. (Anchitherium.)

1873 B, pp. 218, 323, pl. II, fig. 5. (Anchitherium.)

Marsh, O. C. 1874 B, p. 249. (Anchitherium.)

Matthew, W. D. 1899 A, p. 63. (Mesohippus.)

Roger, O. 1896 A, p. 174.

Trouessart, E. L. 1898 A, p. 781.

Miocene (John Day); Oregon.

Miohippus copei (Osborn and Wort.).

Osborn and Wortman 1895 A, pp. 353, 356, fig. 5.

(Mesohippus and Anchitherium.)

Farr, M. S. 1896 A, p. 164, fig. 5. (Mesohippus.)

Matthew, W. D. 1899 A, p. 56. (Mesohippus.)

Trouessart, E. L. 1898 A, p. 781. (Mesohippus.)

Oligocene (White River); South Dakota.

Miohippus cuneatus (Cope).

Cope, E. D. 1873 T, p. 7. (Anchitherium.)

1873 CC, p. 14. (Anchitherium.)

1874 B, p. 497. (Anchitherium.)

1879 D, p. 76. (Anchitherium.)

Matthew, W. D. 1899 A, p. 56. (Syn. of *M. bairdi*.)

Osborn and Wortman 1895 A, p. 353, footnote.

(Mesohippus.)

Roger, O. 1896 A, p. 174. (Mesohippus.)

Scott, W. B. 1895 C, p. 113. (Mesohippus.)

Trouessart, E. L. 1898 A, p. 780. (Mesohippus.)

Oligocene (White River); Colorado.

Miohippus equiceps (Cope).

Cope, E. D. 1879 D, p. 73. (Anchitherium.)

1879 B, p. 58. (Anchitherium.)

1886 H, p. 368. (Anchitherium anceps?)

1889 C, p. 271, fig. 83. (Anchitherium.)

1894 D, p. 791. (Anchitherium or Miohippus.)

Matthew, W. D. 1899 A, pp. 56, 63. (Mesohippus.)

Roger, O. 1896 A, p. 174.

Scott, W. B. 1895 C, p. 79.

Trouessart, E. L. 1898 A, p. 781.

Miocene (John Day); Oregon. Oligocene? (White River?); Montana?

Miohippus exoletus (Cope).

Cope, E. D. 1874 B, p. 496. (Anchitherium.)

1879 D, p. 76. (Anchitherium.)

1894 D, p. 791. (Anchitherium.)

Matthew, W. D. 1899 A, p. 56. (Syn. of *M. bairdi*.)

Osborn and Wortman 1895 A, p. 353. (Mesohippus.)

Roger, O. 1896 A, p. 174. (Mesohippus.)

Trouessart, E. L. 1898 A, p. 782. (Anchitherium.)

Oligocene (White River); Colorado.

Miohippus intermedius (Osborn and Wort.).

Osborn and Wortman 1895 A, pp. 353, 354, fig. 4. (Mesohippus.)

Farr, M. S. 1896 A, p. 169, fig. 6. (Mesohippus.)

Matthew, W. D. 1899 A, p. 56. (Mesohippus.)

Trouessart, E. L. 1898 A, p. 781. (Mesohippus.)

Oligocene (White River); South Dakota, Nebraska.

Miohippus longicristis (Cope).

Cope, E. D. 1879 D, p. 75. (Anchitherium.)

1879 B, p. 58. (Anchitherium.)

~ 1886 H, p. 368. (Anchitherium.)

1894 D, p. 791. (Anchitherium.)

Matthew, W. D. 1899 A, p. 63. (Mesohippus.)

Roger, O. 1896 A, p. 174.

Scott and Osborn 1890 B, p. 88, fig. 12. (Anchitherium.)

Trouessart, E. L. 1898 A, p. 782.

Zittel, K. A. 1893 B, p. 251, fig. 195. (Anchitherium.)

Miocene (John Day); Oregon.

Miohippus præstans (Cope).

Cope, E. D. 1879 S. (Anchitherium.)

1887 N, p. 1069, fig. 36. (Anchitherium.)

1889 B, p. 455. (Anchitherium.)

1894 D, p. 791. (Anchitherium.)

Farr, M. S. 1896 A, p. 163. (Mesohippus.)

Matthew, W. D. 1899 A, p. 63. (Mesohippus.)

Osborn and Wortman 1895 A, p. 356. (Anchitherium.)

Roger, O. 1896 A, p. 174.

Trouessart, E. L. 1898 A, p. 782. (Anchitherium.)

Miocene (John Day); Oregon.

Miohippus ultimus (Cope).

Cope, E. D. 1886 B, p. 357. (Anchitherium.)

1886 H, p. 368. (Anchitherium.)

1887 N, p. 1068. (Anchitherium.)

Farr, M. S. 1896 A, p. 169. (Anchitherium.)

Matthew, W. D. 1899 A, p. 69. (Mesohippus.)

Roger, O. 1896 A, p. 174.

Trouessart, E. L. 1898 A, p. 782.

Miocene (Loup Fork); Oregon.

Miohippus westonii (Cope).

Cope, E. D. 1889 I, p. 153. (Anchitherium.)

Aml, H. M. 1891 A. (Anchitherium.)

Cope, E. D. 1891 A, p. 20, pl. xiv, figs. 1, 2. (Anchitherium.)

Matthew, W. D. 1899 A, p. 56. (Mesohippus.)

Roger, O. 1896 A, p. 174. (Mesohippus.)

Trouessart, E. L. 1898 A, p. 781. (Mesohippus.)

Oligocene (White River); Canada.

ANCHITHERIUM Meyer. Type *A. aurelianense* (Blainv.).

Meyer, H. 1844 A, p. 298.

Ameghino, F. 1896 A, p. 442.

Blainville, H. M. D. 1864 A, IV, Y, pl. VII. ("Palæotherium hippoides, ou equinum, ou aurelianense.")

Cope, E. D. 1874 B, p. 496.

1881 G, p. 899.

Cope, E. D. 1884 O, p. 714.

1887 N, p. 1067.

1889 C, p. 255 et seq.

1892 S, p. 412.

1894 D, p. 791.

Dawkins, W. B. 1870 A.

Depéret, C. 1887 A, p. 213.

Filhol, H. 1891 A, p. 169.
 Flower, W. H. 1876 B, xlii, p. 327.
 Gaudry, A. 1878 B, p. 124.
 Gervais, P. 1859 A, p. 83.
 Huxley, T. H. 1870 B, p. xlix.
 1872 A, p. 306.
 1876 B, xiv, p. 34.
 1876 C, pp. 292, 294.
 Kowalevsky, W. 1873 B.
 Leidy, J. 1854 A, pp. 67, 114.
 1869 A, p. 108.
 1871 C, p. 362.
 Leuthardt, F. 1891 A.
 Lydekker, R. 1886 A, p. 45.
 Major, Fors. 1873 A, p. 103.
 1877 A.
 Marsh, O. C. 1874 B, p. 247.
 Nicholson and Lydekker 1889 A, p. 1358.
 Osborn and Wortman, 1896 A, p. 352.
 Pavlow, M. 1888 A.
 Pomel, A. 1847 A, pp. 202, 203, 207.
 Schlosser, M. 1886 B, p. 14.
 Scott, W. B. 1886 B.

Scott, W. B. 1891 B.
 1891 D, p. 90.
 1893 B, p. 660.
 1895 C, p. 94.
 Scott and Osborn 1890 B, p. 88.
 Steinmann and Döderlein 1890 A, p. 781.
 Welthofer, A. 1888 A, p. 278.
 Wilckens, M. 1884 A.
 Woodward, A. S. 1896 B, p. 327.
 Wortman, J. L. 1882 B, vi, p. 69.
 1883 A, p. 710.
 1893 A.
 Zittel, K. A. 1893 B, p. 250.

Anchitherium equinum Scott.

Scott, W. B. 1893 B, p. 661.
 Cope, E. D. 1894 D, p. 790.
 Matthew, W. D. 1899 A, p. 69.
 Roger, O. 1896 A, p. 174.
 Scott, W. B. 1895 C, p. 94, pl. iii, figs. 23-28; pl. iv, figs. 30, 31.
 Trouessart, E. L. 1898 A, p. 782.
 Miocene (Loup Fork); Montana.

DESMATIPPUS Scott. Type *D. crenidens* Scott.

Scott, W. B. 1893 B, p. 661.
 Cope, E. D. 1894 D, p. 790. (Syn. of Anchitherium.)
 Scott, W. B. 1895 C, p. 84.
 Trouessart, E. L. 1898 A, p. 783. (Desmathippus.)

Desmatippus crenidens Scott.

Scott, W. B. 1893 B, p. 661.

Cope, E. D. 1894 D, p. 791. (Anchitherium.)
 Matthew, W. D. 1899 A, p. 69. (Anchippus.)
 Roger, O. 1896 A, p. 175.
 Scott, W. B. 1895 C, p. 84, pl. ii, figs. 9-14.
 Trouessart, E. L. 1898 A, p. 783. (Desmathippus.)
 Miocene (Loup Fork); Montana.

ANCHIPPUS Leidy. Type *A. texanus* Leidy.

Leidy, J. 1868 I, p. 232.
 Cope, E. D. 1884 O, p. 714.
 1887 N, p. 1067.
 1892 W, p. 943.
 1893 A, p. 22.
 Dawkins, W. B. 1870 A.
 Leidy, J. 1869 A, p. 312.
 1871 C, p. 362.
 Marsh, O. C. 1874 B, p. 254.
 Matthew, W. D. 1899 A, p. 22.
 Nicholson and Lydekker 1889 A, p. 1359.

Anchippus brevidens Marsh.

Marsh, O. C. 1874 B, p. 254.
 Cope, E. D. 1892 H, p. 326.
 1892 W, p. 943.

Cope, E. D. 1893 A, p. 28.
 King, C. 1878 A, p. 443.
 Matthew, W. D. 1899 A, p. 69.
 Roger, O. 1896 A, p. 175.
 Trouessart, E. L. 1898 A, p. 783.
 Miocene (Loup Fork); Oregon.

Anchippus texanus Leidy.

Leidy, J. 1868 I, p. 231.
 1869 A, pp. 312, 403, pl. xxi, fig. 18.
 1871 C, p. 362.
 Marsh, O. C. 1874 B, p. 254.
 Matthew, W. D. 1899 A, p. 56.
 Roger, O. 1896 A, p. 175.
 Trouessart, E. L. 1898 A, p. 783.
 Miocene (Loup Fork?); Texas, Colorado.

HYPOHIPPIUS Leidy. Type *H. affinis* Leidy.

Leidy, J. 1858 E, p. 26. (Subgenus.)
 Cope, E. D. 1892 H, p. 326.
 1892 W, p. 943. (Syn. of Protohippus.)
 1893 A, p. 20. (Syn. of Protohippus.)
 Leidy, J. 1869 A, p. 311.
 1871 C, p. 362.
 Marsh, O. C. 1874 B, p. 255.
 Nicholson and Lydekker 1889 A, p. 1359.
 Schlosser, M. 1886 B, p. 14.
 Zittel, K. A. 1893 B, p. 250. (Syn. of Anchitherium.)

Hypohippus affinis Leidy.

Leidy, J. 1858 E, p. 26. [Anchitherium (Hypohippus).]
 Cope, E. D. 1893 A, p. 22.
 Hayden, F. V. 1858 B, p. 158.
 Leidy, J. 1869 A, pp. 311, 402, pl. xxi, figs. 11, 12.
 1871 C, p. 362.
 Roger, O. 1896 A, p. 174.
 Trouessart, E. L. 1898 A, p. 783.
 Pliocene; South Dakota.

EQUINÆ.

Boule, M. 1899 A, p. 531. ("Équidés.")
 Osborn, H. F. 1893 D, p. 137.
 Osborn and Wortman 1892 A, p. 93.

Roger, O. 1896 A, p. 175.
 Steinmann and Döderlein 1890 A, p. 782.
 Zittel, K. A. 1893 B, p. 252.

MERYCHIPPUS Leidy. Type *M. insignis* Leidy.

Leidy, J. 1856 Q, p. 311.

Unless otherwise indicated, the following authors refer to this genus under the name *Protophippus*.

Ameghino, F. 1891 C, p. 215.
 Cope, E. D. 1873 R, p. 420.
 1877 K, p. 322.
 1881 G, p. 399.
 1884 O, p. 714.
 1887 N, p. 1068.
 1889 C.
 1892 H, p. 326. (Parahippus.)
 1892 W, p. 943. (Merychippus, Parahippus.)
 1898 A, p. 20. (Protophippus; Merychippus a synonym.)

Dana, J. D. 1896 A, p. 913, fig. 1540.

Dawkins, W. B. 1870 A.

Farr, M. S. 1896 A, p. 169.

Flower and Lydekker 1891 A, p. 380.

Gaudry, A. 1877 A. (Merychippus.)

Huxley, T. H. 1876 C, p. 294.

Landois, — 1881 A, p. 128.

Leidy, J. 1858 E, p. 26 (Protophippus, type *P. perditus*); p. 27 (Merychippus).

1869 A, p. 275 (Protophippus); p. 292 (Merychippus); p. 313 (Parahippus).

1870 T, p. 127.

1871 C, p. 360 (Protophippus); p. 361 (Merychippus); p. 362 (Parahippus).

Major, Fors. 1873 A, p. 103. (Merychippus.)

Marsh, O. C. 1877 E.

1879 D, p. 504.

1892 C, p. 354.

Matthew, W. D. 1899 A, p. 69.

Nicholson and Lydekker 1889 A, p. 1359 (Parahippus); p. 1360 (Protophippus).

Pavlov, M. 1888 A. (Protophippus, Merychippus.) 1892 A.

Roger, O. 1889 A.

Rütimeyer, L. 1862 A, p. 611, (Merychippus.)

1877 A. (Merychippus.)

Schlosser, M. 1886 B, p. 14 (Merychippus, Parahippus); p. 15 (Protophippus, syn. of Hipparion).

Scott, W. B. 1891 D, p. 90 (Merychippus); p. 98 (Protophippus).

1896 C, p. 79. (Protophippus.)

Steinmann and Döderlein 1890 A, p. 782 (Merychippus); p. 783 (Protophippus).

Weithofer, A. 1888 A, p. 276.

Woodward, A. S. 1896 B, p. 337.

Wortman, J. L. 1892 B, vi, p. 71.

1883 A, p. 711.

Zittel, K. A. 1893 B, p. 252 (Merychippus); p. 255 (Protophippus).

Merychippus avus (Marsh).

Marsh, O. C. 1874 B, p. 253. (Protophippus.)

King, C. 1878 A, p. 443. (Protophippus.)

Marsh, O. C. 1897 C, p. 524, fig. 100. (Protophippus.)

Matthew, W. D. 1899 A, p. 70. (Protophippus.)

Trouessart, E. L. 1896 A, p. 785. (Protophippus.)

Miocene (Loup Fork); Oregon.

Merychippus castilli (Cope).

Cope, E. D. 1885 S, p. 1208, pl. xxxvii, fig. 6. (Protophippus.)

1886 W, p. 150, fig. 2. (Protophippus.)

1893 A, p. 26. (Protophippus.)

Matthew, W. D. 1899 A, p. 70. (Protophippus.)

Roger, O. 1896 A, p. 177. (Protophippus.)

Trouessart, E. L. 1896 A, p. 784. (Protophippus.)

Miocene (Loup Fork); Mexico.

Merychippus cumminai (Cope).

Cope, E. D. 1893 A, p. 67, pl. xx, fig. 7; pl. xxiii, fig. 1. (Equus.)

1894 A, p. 67. (Equus.)

1899 A, p. 255. (Equus.)

Gidley, J. W. 1901, Bull. Amer. Mus. Nat. Hist., xiv, p. 128. (Protophippus.)

Matthew, W. D. 1899 A, p. 75. (Equus.)

Trouessart, E. L. 1896 A, p. 791. (Equus.)

Pliocene (Blanco); Texas, Oklahoma.

Merychippus fossulatus (Cope).

Cope, E. D. 1893 A, p. 30, pls. v, vi, vii. (Protophippus.)

Matthew, W. D. 1899 A, p. 70. (Protophippus.)

Roger, O. 1896 A, p. 177. (Protophippus.)

Trouessart, E. L. 1896 A, p. 784. (Protophippus.)

Miocene (Loup Fork); Texas.

Merychippus insignis Leidy.

Leidy, J. 1856 Q, p. 311,

Cope, E. D. 1874 P, p. 13. (Protophippus.)

1899 B, p. 457. (Protophippus.)

1892 W, p. 944, pl. xxvi, fig. 4 (Protophippus insignis); fig. 5, (P. medius).

1893 A, p. 25. (Syn. in part of Protophippus medius; in part of P. sejunctus.)

Hayden, F. V. 1858 B, p. 158.

King, C. 1878 A, p. 490.

Leidy, J. 1858 E, p. 27.

1869 A, pp. 296, 402, pl. xvii, figs. 3-7.

1871 C, p. 361.

Major, Fors. 1877 A.

Matthew, W. D. 1899 A, p. 69. (Protophippus medius.)

Osborn, H. F. 1898 I, p. 107, fig. 20.

Roger, O. 1896 A, p. 175 (Protophippus insignis); p. 177 (P. medius).

Scott, W. B. 1893 B, p. 659. (Protophippus.)

Trouessart, E. L. 1896 A, p. 784. (Protophippus sejunctus, part; P. medius, part.)

Weithofer, A. 1888 A, p. 278.

Zittel, K. A. 1893 B, p. 252, fig. 196.

Miocene (Loup Fork); South Dakota, Kansas, Oregon, Mexico.

Merychippus labrosus (Cope).

- Cope, E. D. 1874 P, p. 13. (Protohippus.)
 1874 B, p. 523. (Protohippus.)
 1893 A, p. 26. (Protohippus.)
 Matthew, W. D. 1899 A, p. 69. (Protohippus labrosus; syn. of P. perditus.)
 Roger, O. 1896 A, p. 177. (Protohippus.)
 Trouessart, E. L. 1898 A, p. 784. (Protohippus.)
 Miocene (Loup Fork); Colorado.

Merychippus lenticularis (Cope).

- Cope, E. D. 1893 A, p. 41, pl. xii, figs. 1, 2. (Protohippus.)
 Matthew, W. D. 1899 A, p. 75. (Protohippus.)
 Roger, O. 1896 A, p. 177. (Protohippus.)
 Trouessart, E. L. 1898, p. 784. (Protohippus.)
 Pliocene (Palo Duro); Texas.

Merychippus mirabilis Leidy.

- Leidy, J. 1858 E, p. 27.
 Cope, E. D. 1892 W, p. 943. (Protohippus.)
 1893 A, p. 32, pl. viii; pl. ix, fig. 1; pl. x, fig. 47. (Protohippus.)
 Hayden, F. V. 1858 F, p. 158.
 King, C. 1878 A, p. 430.
 Leidy, J. 1869 A, pp. 299, 327, 402, pl. xvii, figs. 8-15; pl. xxvii, fig. 1.
 1870 J, p. 67.
 1871 C, p. 361.
 1873 B, pp. 248, 250, 322, pl. xx, figs. 16, 20. (M. mirabilis.)
 Matthew, W. D. 1899 A, p. 70. (Pliohippus.)
 Roger, O. 1896 A, p. 175.
 Trouessart, E. L. 1898 A, p. 784. (Protohippus.)
 Weihofer, A. 1888 A, p. 278.
 Miocene (Loup Fork); Nebraska, Colorado, South Dakota, Texas, Utah?

Merychippus pachyops (Cope.)

- Cope, E. D. 1892 W, p. 944, pl. xxvi, fig. 1. (Protohippus.)
 1893 A, p. 26, pl. xi, fig. 1; pl. xii; pl. xvii, figs. 2, 3. (Protohippus.)
 Matthew, W. D. 1899 A, p. 70. (Pliohippus.)
 Roger, O. 1896 A, p. 177. (Protohippus.)
 Trouessart, E. L. 1898 A, p. 783. (Protohippus.)
 Miocene (Loup Fork); Texas.

Merychippus parvulus (Marsh.)

- Marsh, O. C. 1868 A, p. 374. (Equus.)
 Cope, E. D. 1892 H, p. 326. (Protohippus.)
 1892 W, p. 943. (Protohippus.)
 1893 A, pp. 25, 29, pl. xi figs. 1, 2. (Protohippus parvulus?)
 King, C. 1878 A, p. 430. (Protohippus.)
 Leidy, J. 1868 D, p. 196. ("Equus.")
 1869 A, p. 400. (Equus.)
 1871 C, p. 360. (Equus.)
 1873 B, pp. 252, 323, pl. xx, fig. 23. ("Anchitherium?")
 Marsh, O. C. 1874 B, p. 251. (Protohippus.)
 Matthew, W. D. 1899 A, p. 69. (Syn. of Protohippus placidus.)
 Osborn, H. F. 1890 B, p. 89. (Anchitherium?)
 Roger, O. 1896 A, p. 174 (Mesohippus?); p. 177 (Protohippus).

- Trouessart, E. L. 1898 A, p. 785. (Subsp. of Protohippus placidus.)
 Miocene (Loup Fork); Nebraska, Texas?

Merychippus perditus (Leidy.)

- Leidy, J. 1858 E, p. 26. [Equus (Protohippus).]
 Burmeister, H. 1875 A, p. 12. (Protohippus.)
 Cope, E. D. 1874 B, pp. 524, 528. (Protohippus.)
 1874 P, p. 18. (Protohippus.)
 1899 B, p. 447, pl. ii, figs. 9, 12. (Protohippus profectus.)
 1892 W, p. 943, pl. xxvi, fig. 2. (Protohippus.)
 1893 A, pp. 24, 42, pl. x, fig. 2. (Protohippus.)
 1894 A, p. 66. (Protohippus.)
 Hayden, F. V. 1858 B, p. 158. (Equus perditus, Parahippus cognatus.)
 King, C. 1878 A, p. 430. (Protohippus.)
 Leidy, J. 1858 E, p. 26. [Anchitherium (Parahippus) cognatus.]
 1869 A, pp. 275, 327, 400, pl. xvii, figs. 1, 2; pl. xxvii, fig. 5 (Protohippus perditus); pl. xxi, figs. 7-10 (Parahippus cognatus).
 1870 J, p. 67. (Protohippus.)
 1870 W, p. 127. (Protohippus.)
 1871 C, p. 360 (Protohippus perditus); p. 362 (Parahippus cognatus).
 1873 B, pp. 248-250, 322, pl. xx, figs. 16, 20. (Protohippus.)
 Matthew, W. D. 1899 A, pp. 69, 75. (Protohippus.)
 Roger, O. 1896 A, p. 175 (Parahippus cognatus); p. 177 (Protohippus perditus).
 Trouessart, E. L. 1898 A, p. 784. (Protohippus.)
 Miocene (Loup Fork); Nebraska, Colorado, Oklahoma, Kansas, Wyoming: Pliocene (Palo Duro); Texas.
- Merychippus phlegon Hay.**
 Hay, O. P. 1899 G, p. 345. (Equus.)
 Cope, E. D. 1893 A, pp. 44, 66, 67, pl. xx, fig. 8 (Equus minutus, preoccupied.)
 1893 Q, p. 812. (E. minutus.)
 1899 A, p. 255. (E. minutus.)
 Gidley, J. W. 1901, Bull. Amer. Mus. Nat. Hist., xiv, p. 127, figs. 13, 19. (Protohippus.)
 Matthew, W. D. 1899 A, p. 75. (E. minutus.)
 Trouessart, E. L. 1898 A, p. 791. (E. minutus.)
 Pliocene (Blanco); Texas.
- Merychippus placidus (Leidy.)**
 Leidy, J. 1869 A, pp. 277, 323, 401, pl. xviii, figs. 39-48; pl. xxvii, figs. 6, 7. (Protohippus.)
 Cope, E. D. 1873 R, p. 420. (Protohippus.)
 1874 B, pp. 524, 528. (Protohippus.)
 1874 P, p. 19. (Protohippus.)
 1892 H, p. 325. (Protohippus.)
 1892 W, p. 942, pl. xxv. (Protohippus.)
 1893 A, pp. 26, 34, pl. xi, figs. 3-8. (Protohippus.)
 1893 Q, p. 812. (Protohippus.)
 Leidy, J. 1870 W, p. 127. (Protohippus.)
 1871 C, p. 360. (Protohippus.)
 1873 B, pp. 249, 250, 322, pl. xx, figs. 17, 18. (Protohippus.)
 Matthew, W. D. 1899 A, p. 69. (Protohippus.)

Roger, O. 1896 A, p. 177. (Protohippus.)
 Trouessart, E. L. 1898 A, p. 785. (Protohippus.)
 Miocene (Loup Fork); Nebraska, Colorado,
 South Dakota, Texas.

Merychippus sejunctus (Cope.)

Cope, E. D. 1874 P, p. 15. (Protohippus.)
 1873 R, p. 420. (Protohippus; no description.)
 1874 B, pp. 523, 524. (Protohippus.)
 1881 I, p. 271, fig. 3. (Protohippus.)
 1884 J, p. 544, fig. 3. (Protohippus.)
 1886 B, p. 359. (Protohippus.)
 1886 H. (Protohippus.)
 1887 N, p. 1071, fig. 39. (Protohippus.)
 1887 S, p. 271, fig. 3. (Protohippus.)
 1889 C, p. 160. (Protohippus.)
 1893 A, pp. 23, 25. (Protohippus.)
 Matthew, W. D. 1899 A, p. 69. (Protohippus.)
 Roger, O. 1896 A, p. 177. (Protohippus.)
 Scott, W. B. 1893 B, p. 659. (Protohippus.)
 Trouessart, E. L. 1898 A, p. 784. (Protohippus.)
 Woodward, A. S. 1898 B, p. 337, fig. 194. (Protohippus.)
 Wortman, J. L. 1893 A, p. 711, figs. 141, 142. (Protohippus.)
 Zittel, K. A. 1893 B, p. 256, figs. 200, 201. (Protohippus.)
 Miocene (Loup Fork); Colorado, Montana,
 Oregon? New Mexico?.

Merychippus supremus (Leidy.)

Leidy, J. 1869 A, pp. 328, 401, pl. xxvii, figs. 3, 4. (Protohippus.)
 Cope, E. D. 1893 A, p. 25. (Syn. of Protohippus mirabilis.)
 King, C. 1878 A, p. 430. (Protohippus.)
 Leidy, J. 1870 W, p. 127. (Protohippus.)
 1871 C, p. 360. (Protohippus.)
 Matthew, W. D. 1899 A, p. 70. (Syn. of Protohippus mirabilis.)
 Roger, O. 1896 A, p. 177. (Protohippus.)
 Trouessart, E. L. 1898 A, p. 784. (Syn. of Protohippus mirabilis.)
 Miocene (Loup Fork); South Dakota.

Merychippus sp. indet.

Cope, E. D. 1877 K, p. 323, pl. lxxxv, fig. 7. (Protohippus sp.)
 Miocene (Loup Fork); New Mexico.

Merychippus sp. indet.

Scott, W. B. 1893 C, p. 93, pl. ii, fig. 17. (Protohippus sp.)
 Trouessart, E. L. 1898 A, p. 784. (Syn. of Protohippus mirabilis.)
 Miocene; Montana.

PLIOHIPPIUS Marsh. Type *P. pernix* Marsh.

Marsh, O. C. 1874 B, p. 252.
 Cope, E. D. 1879 A, p. 47. (Syn. of Hippidium.)
 1880 B, p. 47. (Syn. of Hippidium.)
 Dana, J. D. 1896 A, p. 913, fig. 1540.
 Flower and Lydekker 1891 A, p. 381.
 Landois, —. 1881 A, p. 123.
 Marsh, O. C. 1874 D.
 1877 E, p. 359.
 1879 D, p. 504.
 1892 C, p. 354.
 Matthew, W. D. 1899 A, p. 70.
 Nicholson and Lydekker 1889 A, p. 1356.
 Schlosser, M. 1886 B, p. 15.
 Welthofer, A. 1888 A, p. 276.
 Zittel, K. A. 1893 B, p. 256.

Pliohippus gracilis Marsh.

Marsh, O. C. 1892 C, p. 347.
 Pliocene; Oregon.

Pliohippus pernix Marsh.

Marsh, O. C. 1874 B, p. 252.
 Cope, E. D. 1880 G. (Hippidium.)
 King, C. 1878 A, p. 430.

Marsh, O. C. 1897 C, pp. 524, 527, fig. 99.
 Matthew, W. D. 1899 A, p. 70.
 Roger, O. 1896 A, p. 177.
 Trouessart, E. L. 1898 A, p. 785.
 Miocene (Loup Fork); Nebraska, Colorado.

Pliohippus robustus Marsh.

Marsh, O. C. 1874 B, p. 253.
 Cope, E. D. 1880 G. (Hippidium.)
 King, C. 1878 A, p. 430.
 Matthew, W. D. 1899 A, p. 70.
 Roger, O. 1896 A, p. 177.
 Trouessart, E. L. 1898 A, p. 785.
 Miocene (Loup Fork); Nebraska.

Pliohippus simplicidens (Cope.)

Cope, E. D. 1892 J, p. 124, fig. 1. (Equus.)
 1892 E, p. 252. (Equus.)
 1892 G, p. 228. (Equus.)
 1892 P. (Equus.)
 1893 A, pp. 41, 44, 66, pl. xx, figs. 1-3. (Equus.)
 Gidley, J. W., 1901, Bull. Amer. Mus. Nat. Hist., xiv, p. 123.
 Trouessart, E. L. 1898 A, p. 785.
 Pliocene (Palo Duro, Blanco); Texas.

HIPPIDION Owen. Type *Equus neogaeus* Lund.

Owen, R. 1870 B, p. 572.
 The amended form of this name, *Hippidium*, is employed by many authors.
 Ameghino, F. 1899 A, p. 513.
 1891 A.
 1891 C, p. 215.
 Branco, W. 1897 A, pp. 19, 78.

Burmeister, H. 1875 A.
 1889 A, p. 3.
 Cope, E. D. 1879 A, p. 47.
 1880 B, p. 47.
 1881 G, p. 400.
 1884 O, p. 715.
 1887 N, p. 1078.

- Cope, E. D. 1893 A, p. 20.
1899 A, p. 256.
Gervais and Ameghino 1880 A, p. 87.
Lydekker, R. 1893 D, pt. iii, p. 74.
Nicholson and Lydekker 1889 A, p. 1361.
Pavlov, M. 1892 A.
Steinmann and Döderlein 1890 A, p. 784.
Wilckens, M. 1884 B, p. 331.
Woodward, A. S. 1898 B, p. 338.
Wortman, J. L. 1883 A, p. 711.
Zittel, K. A. 1893 B, p. 256.

Hippidion interpolatum Cope.

- Cope, E. D. 1893 A, p. 42, pl. xii, figs. 3, 4. (Hippidion.)
Matthew, W. D. 1899 A, p. 75. (Pliohippus.)

- Trouessart, E. L. 1898 A, p. 786.
Pliocene (Palo Duro); Texas.

Hippidion spectans Cope.

- Cope, E. D. 1880 G. (Hippidion.)
1887 N, p. 1072, fig. 41. (Hippidion.)
1892 E, p. 253. (Hippidion.)
1893 A, p. 43, pl. xii, figs. 5, 6. (Hippidion? spectans.)
Matthew, W. D. 1899 A, pp. 70, 75. (Pliohippus.)
Roger, O. 1896 A, p. 178. (Pliohippus.)
Trouessart, E. L. 1892 A.
1898 A, p. 786.
Zittel, K. A. 1893 B, p. 256. (Pliohippus.)
Miocene (Loup Fork); Oregon: Pliocene (Palo Duro); Texas.

HIPPARION Christol.

- Christol, J., 1832, Ann. Sci. Indust. Mid. France, i, p. 180.

Christol's name *Hipparion* for this genus antedates Kaup's *Hippotherium*. It is said by Christol (Bull. Soc. Geol. France, ix, 1852, p. 255) to have been defined, but the present writer has not been able to learn whether or not Christol described or designated a type species.

- Ameghino, F. 1891 C, p. 215. (Hippotherium.)
Branco, W. 1897 A, pp. 19, 78. (Hipparion.)
Boule, M. 1899 A, p. 541. (Hipparion.)
Bronn, H. G. 1838 A, p. 1192 (Hippotherium); p. 1193 (Hipparion.)
Cope, E. D. 1879 D, p. 76. (Stylonus, type *S. seversus* Cope.)
1881 G, p. 399. (Hippotherium.)
1884 O, p. 714. (Hippotherium.)
1887 N, p. 1068. (Hippotherium.)
1889 B, p. 430. (Hippotherium.)
1889 C, p. 256. (Hippotherium.)
1893 A, pp. 21, 36. (Hippotherium.)
Filhol, H. 1891 A, p. 186, seq. (Hipparion.)
Flower and Lydekker 1891 A, p. 380. (Hipparion.)
Gaudry, A. 1878 B, p. 124. (Hipparion.)
1890 A. (Hipparion.)
Gervais, P. 1859 A, p. 80. (Hipparion.)
Hensel, R. 1860 A. (Hipparion.)
Huxley, T. H. 1870 A, p. 439. (Hipparion.)
1870 B, p. xlix. (Hipparion.)
1872 A, p. 306. (Hipparion.)
Kaup, J. J. 1833 A, p. 327. (Hippotherium, type *H. gracilis* Kaup.)
1835 A. (Hippotherium.)
Kowalevsky, W. 1873 A, p. 220. (Hipparion.)
Leidy, J. 1854 C, p. 90. (Hippodon, type *H. speciosus* Leidy.)
1858 E, p. 27.
1869 A, p. 280. (Hipparion.)
1871 C, p. 360. (Hipparion.)
1873 B, p. 247. (Hipparion.)
Leuthardt, F. 1891 A. (Hippotherium.)
Lydekker, R. 1882 A. (Hipparion.)
1886 A, p. 50. (Hipparion.)
1891 A, p. 380. (Hipparion.)
Major, Fors. 1877 A. Hipparion.)
Marsh, O. C. 1874 B, p. 255. (Hipparion.)
1874 D. (Hipparion.)

- Nicholson and Lydekker 1889 A, p. 1360. (Hipparion.)
Osborn, H. F. 1893 D, p. 7. (Hipparion.)
Owen, R. 1845 B, p. 573. (Hipparion.)
Pavlov, M. 1888 A. (Hipparion.)
1890 A. (Hipparion.)
1892 A. (Hipparion.)
Pictet, F. J. 1853 A, p. 314. (Hipparion, Hippotherium.)
Quenstedt, F. A. 1850 A. (Hippotherium.)
Rütimeyer, L. 1862 A, p. 646. (Hipparion.)
Schlosser, M. 1886 B, p. 15. (Hipparion.)
Scott, W. B. 1893 B, p. 661. (Hipparion.)
Steinmann and Döderlein 1890 A, p. 782.
Weithofer, A. 1888 A, p. 273. (Hipparion.)
Wilckens, M. 1884 A. (Hipparion.)
1888 A. (Hipparion.)
Woodward, A. S. 1898 B, p. 338. (Hipparion.)
Wortman, J. L. 1882 B, vi, p. 78. (Hippotherium.)
1883 A, p. 711. (Hippotherium.)
1886 A, p. 483. (Hippotherium.)
Zittel, K. A. 1893 B, p. 252. (Hipparion.)

Hipparion affine Leidy.

- Leidy, J. 1869 A, pp. 286, 402, pl. xviii, figs. 20-24. (Hipparion.)
Cope, E. D. 1889 B, p. 434, fig. 1. (Hippotherium occidentale, not of Leidy; *H. affine*.)
1893 A, p. 36. (Hippotherium.)
Leidy, J. 1871 C, p. 361. (Hipparion.)
Lydekker, R. 1882 A, p. 70. (Hippotherium.)
Pavlov, M. 1888 A, pl. i, fig. 26. (Hipparion.)
Roger, O. 1896 A, p. 176. (Hipparion.)
Trouessart, E. L. 1898 A, p. 786. (Hipparion.)
Miocene (Loup Fork); Nebraska, Texas.

Hipparion calamarium (Cope).

- Cope, E. D. 1875 P, p. 259. (Hippotherium.)
1875 F, p. 70. (Hippotherium.)
1877 K, p. 321, pl. lxxv, figs. 1, 2. (Hippotherium.)
1889 B, p. 451, fig. 15. (Hippotherium.)
1893 A, p. 22. (Hippotherium.)
Matthew, W. D. 1899 A, p. 70. (Hipparion.)
Roger, O. 1896 A, p. 176. (Hipparion.)
Trouessart, E. L. 1898 A, p. 789. [Hipparion (Stylonus).]
Miocene (Loup Fork); New Mexico, Colorado.

Hipparion eurystylum (Cope).

- Cope, E. D. 1893 A, pp. 43, 66, pl. xii, figs 7, 8; pl. xx, fig. 6. (Equus.)
 1899 A, p. 255. (Equus.)
 Gidley, J. W., 1901, Bull. Amer. Mus. Nat. Hist., xiv, p. 125. (Hipparion.)
 Matthew, W. D. 1899 A, p. 75. (Equus.)
 Trouessart, E. L. 1896 A, p. 791. (Equus.)
 Pliocene (Goodnight?); Texas.

Hipparion gratum Leidy.

- Leidy, J. 1869 A, pp. 287, 326, 402, pl. xviii, figs. 25, 30. (Hipparion.)
 Cope, E. D. 1889 B, p. 445, figs. 16, 17. (Hippotherium.)
 1892 H, p. 325. (Hippotherium.)
 1892 W, p. 942. (Hippotherium.)
 1893 A, pp. 21, 26. (Syn. of Protohippus placidus.)
 Leidy, J. 1871 C, p. 361. (Hipparion.)
 1885 A, p. 33, figure. (Hippotherium ingenuum.)
 1887 A, p. 306. (Hippotherium.)
 1889 B. (Hippotherium ingenuum.)
 1889 E, p. 20, pl. iii, figs. 2-4; text figure. (Hippotherium ingenuum.)
 1892 A. (Hippotherium ingenuum.)
 Leidy and Lucas 1896 A, p. 49, pl. xviii, figs. 15, 16; pl. xix, figs. 9, 10. (Hippotherium.)
 Lydekker, R. 1882 A, p. 70. (Hippotherium.)
 Matthew, W. D. 1899 A, p. 69. (Syn. of Protohippus placidus.)
 Roger, O. 1896 A, p. 176. (Hipparion ingenuum.)
 Trouessart, E. L. 1896 A, p. 785. (Syn. of Protohippus placidus.)
 Miocene (Loup Fork); Nebraska, Kansas.

Hipparion isonesum (Cope).

- Cope, E. D. 1889 B, p. 461, fig. 23. (Hippotherium.)
 1886 B, p. 359. (Hippotherium seversum, in part.)
 Matthew, W. D. 1899 A, p. 70. (Hipparion.)
 Trouessart, E. L. 1896 A, p. 789. [Hipparion (Stylonus).]
 Miocene (Ticholeptus); Montana, Oregon, Colorado.

Hipparion minimum (Douglass).

- Douglass, E. 1900 A, p. 26.
 Miocene; Montana.

Hipparion montezumæ (Leidy).

- Leidy, J., 1882, Proc. Acad. Nat. Sci. Phila., p. 291. (Hippotherium.)
 Cope, E. D. 1889 B, p. 435. (Hippotherium.)
 Leidy, J. 1889 E, p. 21, pl. v, figs. 5-7, 10. (Hippotherium.)
 Matthew, W. D. 1899 A, p. 70. (Hipparion.)
 Roger, O. 1896 A, p. 176. (Hipparion.)
 Trouessart, E. L. 1896 A, p. 787. (Hipparion montezumal.)
 Miocene (Loup Fork); Mexico.

Hipparion occidentale Leidy.

- Leidy, J. 1856 D, p. 59. (Hipparion.)
 Cope, E. D. 1886 B, p. 359. (Hippotherium.)
 1886 H. (Hippotherium.)

- Cope, E. D. 1892 AA. (Hippotherium.)
 1893 A, p. 36. (Hippotherium.)
 Hayden, F. V. 1858 B, p. 158.
 Leidy, J. 1856 B, p. 422. (Hipparion.)
 1858 E, p. 27. (Hipparion.)
 1869 A, pp. 231, 326, 401, pl. xviii, figs. 1-5; pl. xxvii, fig. 2.
 1871 C, p. 361. (Hipparion.)
 Lydekker, R. 1882 A, p. 70. (Hippotherium.)
 Matthew, W. D. 1899 A, p. 70. (Hipparion.)
 Roger, O. 1896 A, p. 176. (Hipparion.)
 Trouessart, E. L. 1896 A, p. 787. (Hipparion occidentale, in part.)
 Wortman, J. L. 1883 A, p. 712. (Hippotherium.)
 Miocene (Loup Fork); South Dakota, Texas.

Hipparion paniense (Cope).

- Cope, E. D. 1874 P, p. 12. (Hippotherium.)
 1874 B, p. 522. (Hippotherium.)
 1889 B, p. 447, figs. 13, 14. (Hippotherium.)
 Lydekker, R. 1882 A, p. 70. (Hippotherium.)
 Matthew, W. D. 1899 A, p. 70. (Hipparion.)
 Roger, O. 1896 A, p. 176. (Hipparion.)
 Trouessart, E. L. 1896 A, p. 788. (Hipparion.)
 Miocene (Loup Fork); Colorado.

Hipparion peninsulatum (Cope).

- Cope, E. D. 1885 S, pl. xxxvii, fig. 5. (Hippotherium; no description.)
 1886 W, p. 150, fig. 1. (Hippotherium.)
 1889 B, p. 436, fig. 4. (Hippotherium.)
 Matthew, W. D. 1899 A, p. 70. (Hipparion.)
 Roger, O. 1896 A, p. 176. (Hipparion.)
 Trouessart, E. L. 1896 A, p. 787. (Hipparion.)
 Miocene (Loup Fork); Mexico.

Hipparion plicatile (Leidy).

- Leidy, J. 1887 A, p. 309, figure. (Hippotherium.)
 Cope, E. D. 1889 B, p. 444, fig. 6. (Hippotherium.)
 Leidy, J. 1889 B. (Hippotherium.)
 1889 E, p. 20. (Hippotherium.)
 1892 AA. (Hippotherium.)
 Leidy and Lucas 1896 A, p. 50, pl. xviii, figs. 11-14; pl. xix, figs. 1-8. (Hippotherium.)
 Roger, O. 1896 A, p. 176. (Hipparion.)
 Trouessart, E. L. 1896 A, p. 787. (Hipparion.)
 Miocene; Florida.

Hipparion rectidens (Cope).

- Cope, E. D. 1886 B, p. 360. (Hippotherium.)
 1889 B, pp. 435, 458. (Hippotherium.)
 Roger, O. 1896 A, p. 176. (Hipparion.)
 Trouessart, E. L. 1896 A, p. 787. (Hipparion.)
 Miocene (Loup Fork); Mexico.

Hipparion relictum (Cope).

- Cope, E. D. 1889 K, p. 254. (Hippotherium.)
 1889 B, p. 449, figs. 19, 20. (Hippotherium.)
 Matthew, W. D. 1899 A, p. 70. (Hipparion.)
 Roger, O. 1896 A, p. 176. (Hipparion.)
 Trouessart, E. L. 1896 A, p. 788. (Hipparion.)
 Pliocene (Blanco); Oregon.

Hipparion retrusum (Cope).

- Cope, E. D. 1889 B, p. 446, figs. 7, 8. (Hippotherium.)
 Trouessart, E. L. 1896 A, p. 788. (Hipparion.)
 Miocene (Loup Fork); Kansas.

Hipparion seversum (Cope).

- Cope, E. D. 1879 D, p. 76. (Stylonus.)
 1886 H. (Hippotherium.)
 1889 B, p. 457, fig. 24. (Hippotherium.)
 Matthew, W. D. 1899 A, p. 71. (Hipparion.)
 Trouessart, E. L. 1898 A, p. 779. [Hipparion (Stylonus).]
 Wortman, J. L. 1883 A, p. 712. (Hippotherium.)
 Miocene? (Tchileptus); Oregon.

Hipparion sinclairii (Wort.).

- Wortman, J. L. 1883 A, p. 712. (Hippotherium.)
 Cope, E. D. 1886 B, p. 359. (Hippotherium.)
 1886 H. (Hippotherium.)
 1889 B, p. 434, fig. 2. (Hippotherium.)
 Matthew, W. D. 1899 A, p. 70. (Hipparion.)
 Roger, O. 1896 A, p. 176. (Hipparion.)
 Trouessart, E. L. 1898 A, p. 787. (Hipparion.)
 Miocene (Loup Fork); Oregon.

Hipparion speciosum Leidy.

- Leidy, J. 1854 C, p. 90. (Hippodon.)
 Cope, E. D. 1875 F, p. 71. (Hippotherium.)
 1877 K, p. 322, pl. lxxv, fig. 3. (Hippotherium.)
 1887 N, p. 1070, fig. 38. (Hippotherium.)
 1889 B, p. 436, fig. 5. (Hippotherium.)
 Hayden, F. V. 1858 B, p. 158. (Hipparion.)
 Leidy, J. 1856 Q, p. 311. [Hipparion (Hippodon).]
 1858 E, p. 27. (Hipparion *acu* Hippotherium.)
 1869 A, pp. 282, 401, pl. xviii, figs. 6-9. (Hipparion.)
 1871 C, p. 361. (Hipparion.)
 1873 B, pp. 247, 248, 322, pl. xx, figs. 14, 15. (Hipparion.)

- Lydekker, R. 1882 A, p. 70. (Hippotherium.)
 Matthew, W. D. 1899 A, p. 70. (Hipparion.)
 Roger, O. 1896 A, p. 176. (Hipparion.)
 Trouessart, E. L. 1898 A, p. 787. (Hipparion.)
 Wortman, J. L. 1883 A, p. 711, figs. 138, 139. (Hippotherium.)
 Zittel, K. A. 1893 B, p. 253, fig. 198. (Hipparion.)
 Miocene (Upper); South Dakota, New Mexico, Colorado, Texas, Kansas.

Hipparion sphenodus (Cope).

- Cope, E. D. 1889 B, p. 449, figs. 21, 22. (Hippotherium.)
 1874 P, p. 12. (Hippotherium speciosum, not of Leidy.)
 1884 B, p. 522. (Hippotherium speciosum, not of Leidy.)
 Matthew, W. D. 1899 A, p. 71. (Hipparion.)
 Trouessart, E. L. 1898 A, p. 788. (Hipparion.)
 Miocene (Loup Fork); Colorado.

Hipparion venustum Leidy.

- Leidy, J. 1860 B, p. 106, pl. xvi, figs. 32, 33. (Hippotherium.)
 Cope, E. D. 1889 B, p. 448, fig. 18. (Hippotherium.)
 Leidy, J. 1853 E. (Hipparion venustum; no description.)
 1869 A, p. 401. (Hipparion.)
 1871 C, p. 361. (Hipparion.)
 1877 A, p. 212. (Hipparion.)
 Lydekker, R. 1882 A, p. 71. (Hippotherium.)
 Roger, O. 1896 A, p. 176. (Hipparion.)
 Trouessart, E. L. 1898 A, p. 787. (Hipparion.)
 Tertiary; South Carolina.

EQUUS Linn. Type *E. caballus* Linn.

- Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 73.
 Ameghino, F. 1889 A, p. 508.
 1891 A.
 Auld, R. C. 1892 A.
 Blake, C. C. 1863 A.
 Blake, W. P. 1864 A.
 Boas, J. E. 1884 A.
 Boule, M. 1899 A, p. 531.
 Branco, W. 1897 A, pp. 19, 67.
 Burmeister, H. 1867 A, p. 238.
 1875 A.
 1889 A, p. 14.
 Cope, E. D. 1881 G, p. 400.
 1884 G, p. 9.
 1884 O, p. 715.
 1884 JJ, p. 40.
 1887 N.
 1889 C, p. 257.
 1892 J, p. 125. (Tomolabis, type *E. fraternus* Leidy, part.)
 1899 A, p. 256.
 Cuvier, G. 1834 A, iii, p. 193, plates.
 Dana, J. D. 1896 A, p. 913, fig. 1540.
 Ewart, J. C. 1894 A.
 1894 B.
 Flower, W. H. 1881 A.
 1885 A.
 Flower and Lydekker 1891 A, p. 381.
 Gaudry, A. 1878 B, p. 137.
 Gervais, P. 1874 A.

- Gray, J. E. 1869 A, p. 263.
 Huxley, T. H. 1870 A, p. 439.
 1870 B, p. xlix.
 Leidy, J. 1869 A, p. 258.
 1871 C, p. 359.
 Leuthardt, F. 1891 A, p. 102.
 Lydekker, R. 1882 A.
 1886 A, p. 65.
 Marsh, O. C. 1874 B, p. 256.
 1877 E.
 1879 D, p. 499.
 Mojsisovics, A. 1889 A.
 Nicholson and Lydekker 1889 A, p. 1361.
 Owen, R. 1844 A, p. 230.
 1845 B, p. 572.
 1846 B, p. 383.
 1866 B, p. 447, figs. 300, 303-305.
 1868 A, p. 352, figs. 280-285.
 Paull, S. 1900 A, p. 190.
 Pictet, F. J. 1863 A, p. 315.
 Ridewood, W. G. 1896 A.
 Roger, O. 1889 A.
 Ryder, J. A. 1877 A.
 Rüttimeyer, L. 1862 A, p. 671.
 Schlosser, M. 1896 A, pp. 253, 432.
 Scott, W. B. 1891 B.
 Steinmann and Döderlein 1890 A, p. 783.
 Struthers, J. 1885 A.
 1893 B.
 Trouessart, E. L. 1892 A.

Trouessart, E. L. 1898 A, p. 790.

Weithofer, A. 1888 A, p. 273.

Wheatley, C. M. 1871 A.

Wilckens, M. 1884 A.

1884 B.

1885 A.

The North American species of this genus have been greatly confused, and many of the identifications of authors are erroneous. In this work the species are accepted on the authority of Mr. J. W. Gidley, of the American Museum of Natural History, New York, who has made an exhaustive study of them. His paper appeared in the Bulletin of the Museum, vol. xiv, 1901, pp. 92-142. He is not to be held responsible for the citations that are made under the various species.

Equus caballus Linn.

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 73.

Agassiz, L. in Holmes, F. S. 1858 A. ("Horse.")

Boule, M. 1899 A, p. 631, figs. 1, 6, 9, 12, 19.

Broadhead, G. C. 1870 A. ("Horse;" species doubtful.)

Buckland, W. 1831 A, p. 595, pl. iii, figs. 14-16. ("Horse;" species doubtful.)

Cope, E. D. 1884 G, pp. 10, 11.

1887 N, p. 1072, fig. 48.

1893 A, pp. 66, 82.

Dana, J. D. 1879 A, p. 238.

Emmons, E. 1858 B, p. 196, figs. 18-21. (E. caballus; identification doubtful.)

Gidley, J. W. 1900 A, p. 111, figs. 4, 5, A.

Holmes, F. S. 1858 A. ("Horse.")

Huxley, T. H. 1872 A, p. 295.

Leidy, J. in Holmes, F. S. 1858 A. ("Horse.")

1860 B, p. 101.

1869 A, pp. 261, 399. (E. caballus, E. fossilis.)

1871 C, p. 360. (E. fossilis.)

1889 D, p. 16.

1889 E, p. 19.

Leidy, J. in Whitney, J. D. 1879 A, p. 257.

Lydekker, R. 1882 A, p. 71.

1886 A, pp. 73, 78, 80, 82, 88, 86.

Marsh, O. C. 1879 D.

Owen, R. 1845 B, p. 572, pls. cxxxvi, cxxxvii.

1868 A, p. 352, figs. 280-285.

1890 A.

Pavlov, M. 1888 A.

1890 A.

Richardson, J. 1854 A, p. 17. (E. fossilis.)

Roger, O. 1896 A, p. 180.

Swallow, G. C. 1866 A. ("Horse;" possibly not E. caballus.)

Wilckens, M. 1884 B, p. 337.

1888 A, p. 16.

Zittel, K. A. 1893 B, pp. 234, 235, figs. 169G, 170F; p. 257, fig. 202.

Pleistocene: Alaska, California, Kansas, Missouri, North Carolina, South Carolina, Canada.

Remains supposed to belong to the same species as our domestic horse have been found in various places in North America. In some cases the identifications have been open to question; in other cases the remains may have been derived from the introduced race. The former existence of the species in Alaska and in California appears well established.

Equus complicatus Leidy.

Leidy, J. 1858 C, p. 11.

Blake, C. C. 1863 A, p. 28. (E. nearcticus Blake.)

Carpenter, W. M. 1838 A, p. 202, figs. 1-3. ("Horse.")

Cooper, Wm. 1831 A, p. 207. ("Equus.")

Cooper, Smith and De Kay, 1831 A, p. 371. ("Horse.")

Cope, E. D. 1869 E, p. 176.

1869 N, p. 741.

1878 H, p. 389. (E. major.)

1882 FF, p. 922. (E. major.)

1884 G, pp. 10, 11. (E. major.)

1884 JJ, p. 41. (E. major.)

1889 F. (E. major.)

1889 S, p. 980. (E. major.)

1892 E, p. 251. (E. major.)

1892 J, p. 123. (E. major.)

1893 A, p. 83. (E. major.)

1896 H, p. 463, pl. xi, fig. 8; pl. xii. (E. intermedius.)

1899 A, pp. 255, 259. (E. complicatus, E. intermedius.)

Cragin, F. W. 1896 A, p. 53.

De Kay, J. E. 1842 C, p. 106. E. major; no description, no figures, no types.)

Gibbes, R. W. 1850 B. (E. americanus.)

1850 C. (E. americanus.)

Gidley, J. W. 1900 A, p. 114. (E. eous.)

Hay, O. P. 1899 A, p. 598. (E. eous, to replace E. intermedius.)

Holmes, F. S. 1850 A. ("Equus.")

Kindle, E. M. 1898 A, p. 485.

Leidy, J. 1847 A, p. 265, pl. ii, figs. 1, 4-6. (E. americanus, preoccupied.)

1847 C, p. 328. (E. americanus.)

1851 K, p. 140. (E. americanus.)

1853 E. (E. americanus.)

1854 I, p. 200. (E. americanus.)

1860 B, p. 100, pl. xv, figs. 2-5, 7, 9, 11-15; pl. xvi, figs. 24-26, 30, 31.

1868 A, p. 175.

1869 A, pp. 265, 399. (E. major.)

1871 A, p. 63. (E. major.)

1871 C, p. 360. (E. major.)

1871 F, p. 113.

1873 B, pp. 244, 321, pl. xxxiii, figs. 3-18.

1877 A, p. 212. (E. major.)

1884 A. (E. major.)

1889 F, p. 38, figures. (E. major.)

1890 A, p. 182. (Hippotherium princeps.)

Leidy and Lucas 1896 A, pp. viii, 49; pl. xii, figs. 12, 13. (E. major.)

Miller, G. S. 1899 B, p. 372. (E. major.)

Roger, O. 1896 A, p. 176 (Hipparion princeps); p. 178 (E. major); p. 179 (E. intermedius.)

Skilton, — 1856 A. (E. major.)

Trouessart, E. L. 1898 A, p. 790. (E. major.)

Wailles, B. C. L. 1854 A, p. 286. (E. americanus.)

Wilckens, M. 1884 B, p. 337.

Williston, S. W. 1897 I, p. 303. (E. major.)

1898 I, p. 92. (E. major.)

Woodworth, J. B. 1900 B, p. 459. ("Fossil horse.") Pleistocene: Mississippi, Missouri, South Carolina, New Jersey, Pennsylvania, New York, Massachusetts, Indiana, Illinois, Kentucky, Texas, Kansas, Louisiana, Oregon, Washington, Nevada.

Equus conversidens Owen.

- Owen, R. 1869 A, p. 267.
 Cope, E. D. 1884 G, p. 12.
 Leidy, J. 1869 A, p. 400.
 1871 C, p. 360.
 Owen, R. 1870 B, pl. lxi, figs. 1, 3.
 Roger, O. 1896 A, p. 179.
 Trouessart, E. L. 1898 A, p. 791.
 Wilckens, M. 1884 B, p. 328.
 Pleistocene; Valley of Mexico.
 This species is not known to occur within the limits included in this work.

Equus crenidens Cope.

- Cope, E. D. 1884 G, pp. 10, 12.
 1885 S, p. 1208.
 1887 N, p. 1072, fig. 42.
 1889 F.
 1899 A, p. 255.
 Cope and Wortman 1884 A, p. 40.
 Felix and Lenk 1891, p. 131.
 Roger, O. 1896 A, p. 178.
 Trouessart, E. L. 1898 A, p. 790.
 Pleistocene; Mexico.

Equus excelsus Leidy.

- Leidy, J. 1858 E, p. 26.
 Amer. Geologist 1892 A.
 Cope, E. D. 1884 G, pp. 10, 13.
 1884 JJ, p. 41.
 1885 S.
 1887 N, p. 1076.
 1889 F.
 1889 S, p. 980.
 1891 J.
 1892 C.
 1893 A, p. 80, pl. xx, figs. 4, 5; pl. xxii, figs. 4, 5.
 Dana, J. D. 1879 A, p. 233.
 Dawkins, W. B. 1870 A.
 Felix and Lenk 1891 A, pp. 128, 135, pl. xxx, fig. 7.
 Hayden, F. V. 1858 B, p. 158.
 Leidy, J. 1869 A, pp. 266, 400, pl. xix, fig. 39; pl. xxi, fig. 31.
 1870 J, p. 67.
 1871 C, p. 360.
 1873 B, p. 242. (Syn. of *E. occidentalis*.)
 Roger, O. 1896 A, p. 178. (Syn. of *E. occidentalis*.)
 Trouessart, E. L. 1898 A, p. 790.
 Whitney, J. D. 1879 A.
 Wilckens, M. 1884 B, p. 337.
 Williston, S. W. 1897 I, p. 303.
 1898 I, p. 92.
 Pleistocene; South Dakota, Nebraska, Texas, Mexico, Oregon?, Kansas.

Equus fraternus Leidy.

- Leidy, J. 1860 B, p. 100, pl. xv, figs. 6, 8, 16-18; pl. xvi, figs. 23, 28.
 Conrad, T. A. 1869 A, p. 359.
 1871 A.
 Cooper, Smith, and De Kay 1831 A, p. 370, in part. ("Equus.")
 Cope, E. D. 1869 N, p. 741.
 1884 JJ, p. 41.
 1885 S, p. 1209.
 1892 J, p. 125. (Tomolabis.)

- Cope, E. D. 1896 H, p. 465.
 1899 A, pp. 255, 257. (*E. fraternus fraternus*.)
 Harlan, R. 1835 B, p. 267. (*E. caballus*.)
 Hayes, Seth 1896 A.
 Kindie, E. M. 1898 A, p. 485.
 Leidy, J. 1847 A, p. 263, in part (*E. curvidens*); pl. ii, figs. 2, 3 (*E. americanus*).
 1858 C, p. 11. (Description insufficient.)
 1869 A, pp. 266, 400.
 1871 A, p. 63.
 1871 C, p. 360.
 1877 A, p. 212.
 1889 D, p. 16.
 1889 F, p. 88.
 1892 A.
 Lucas, F. A. 1899 A, p. 764. (*E. fraternus*?)
 Marsh, O. C. 1874 B, p. 255.
 Roger, O. 1896 A, p. 178.
 Trouessart, E. L. 1898 A, p. 790.
 Wilckens, M. 1884 B, p. 336.
 Pleistocene; South Carolina, North Carolina, Mississippi, Georgia, Kentucky, Texas, New Jersey, Indiana, Alaska?, Pennsylvania, Louisiana.

Equus giganteus Gidley.

- Gidley, J. W., 1901, Bull. Amer. Mus. Nat. Hist., xiv, p. 137, fig. 27.
 Cope, E. D. 1885 S, p. 1208, pl. xxxvii, fig. 4. (*E. crenidens*.)
 Pleistocene; Texas.

Equus occidentalis Leidy.

- Leidy, J. 1865 C, p. 94.
 Bowers, S. 1889 A, p. 391.
 Cope, E. D. 1878 H, p. 389.
 1884 G, pp. 10, 11.
 1884 JJ, p. 41.
 1885 S.
 1887 N, p. 1076.
 1889 F.
 1889 S, p. 980.
 1892 E, p. 252.
 1893 A, pp. 66, 81.
 1896 H, p. 464.
 1899 A, p. 255.
 Dana, J. D. 1879 A, p. 233.
 Le Conte, J. 1883 A. (*E. occidentalis*, *E. pacificus*.)
 Leidy, J. 1869 A, pp. 266, 400. (*E. excelsus*, in part.)
 1873 B, pp. 239, 322, pl. xxxiii, figs. 1, 2.
 Lydekker, R. 1882 A, p. 72.
 Roger, O. 1896 A, p. 178.
 Trouessart, E. L. 1898 A, p. 790.
 Whitney, J. D. 1879 A, p. 257.
 Wilckens, M. 1884 B, p. 337.
 Williston, S. W. 1897 I, 303.
 1898 I, p. 92.
 Pleistocene; California.

Equus pacificus Leidy.

- Leidy, J. 1868 D, p. 82.
 Gidley, J. W., 1901, Bull. Amer. Mus. Nat. Hist., xiv, p. 116.
 Le Conte, J. 1883 A.

Leidy, J. 1869 A, p. 400.

1871 C, p. 360.

1871 D, p. 50.

Pleistocene; Oregon.

***Equus pectinatus* Cope.**

Cope, E. D. 1899 A, pp. 255, 257. (*E. fraternus* pectinatus.)

Pleistocene; Pennsylvania, Illinois?.

***Equus scotti* Gidley.**

Gidley, J. W. 1900 A, p. 111, figs. 1-3, 5A.

Pleistocene (*Equus* beds); Texas.

***Equus semiplicatus* Cope.**

Cope, E. D. 1893 A, p. 80, pl. xxiii, figs. 2, 3.

1889 F, p. 161. (*E. fraternus*, not of Leidy.)

1899 A, p. 255.

Trouessart, E. L. 1898 A, p. 791.

Pleistocene; Texas.

***Equus tau* Owen.**

Owen, R. 1870 B, p. 565, pl. lxi, fig. 4.

Cope, E. D. 1884 G, p. 12 (*E. tau*); pp. 10, 15 (*E. barcenæi*).

1884 JJ, p. 41. (*E. barcenæi*.)

1885 S. (*E. barcenæi*.)

1889 F. (*E. tau*, *E. barcenæi*.)

1893 A, p. 79.

1899 A, p. 255.

Felix and Lenk 1891 A, pp. 127, 136, pl. xxx, figs.

6, 6a (*E. barcenæi*); p. 135 (*E. tau*).

Leidy, J. 1869 A, p. 401.

Owen, R. 1869 A, p. 268. (No description.)

Roger, O. 1896 A, p. 178. (*E. barcenæi*.)

Trouessart, E. L. 1898 A, p. 790.

Wilckens, M. 1884 B, p. 329.

Pleistocene; Mexico, Texas.

Superfamily TAPIROIDEA.

Gill, T. 1872 B, p. 12 (*Tapiroidea*); p. 88 (*Lophiodontidea*).

LOPHIODONTIDÆ.

By some authors this group is regarded as a subfamily of the Tapiridae.

Cope, E. D. 1879 C, pp. 228, 232.

1879 V, p. 771f.

1881 G, pp. 378, 379, 381.

1881 O.

1884 O, pp. 614, 617.

1887 N, pp. 991, 993.

1889 C, p. 158.

Flower, W. H. 1876 B, xiii, p. 327.

1883 D, p. 428.

Flower and Lydekker 1891 A, p. 373.

Gaudry, A. 1897 A.

Gill, T. 1872 B, p. 12.

Lydekker, R. 1886 A, p. 6.

1886 D, p. 326.

Nicholson and Lydekker 1889 A, pp. 1354, 1364.

Osborn, H. F. 1893 D, p. 87.

1898 I, p. 79.

Osborn and Wortman 1892 A, p. 92 (*Lophiodontidae*, *Lophiodontinæ*); p. 127 (*Helaletidae*, *Helaletinæ*).

1895 A, p. 358.

Rütimeyer, L. 1888 A, p. 27.

1891 A, p. 21.

Trouessart, E. L. 1896 A, p. 760.

Woodward, A. S. 1896 B, p. 322.

Wortman, J. L. 1882 B, p. 723.

1883 A, p. 710.

1886 A, p. 478.

Wortman and Earle 1893 A, p. 173. (*Helaletidae* = *Helaletinæ* + *Colodontinæ*.)

Zittel, K. A. 1893 B, p. 274. (*Lophiodontinæ*.)

LOPHIODON Cuv. Type *L. tapiroides* Cuv.

The following references are given to the literature of the genus *Lophiodon*, the type of its family. No American species are here recognized as belonging to this genus, although several have at times been assigned to it by authors.

Cuvier, G., 1822, *Oss. Foss.*, ed. 2, vol. ii, pt. 1, p. 176.

Blainville, H. M. D. 1864 A, iv, Y, p. 80, plates.

Cope, E. D. 1873 E, p. 596.

1873 H, p. 212.

1881 G, p. 381.

1884 O, p. 618.

1887 N, pp. 994, 998.

Filhol, H. 1885 A.

1888 A.

Flower and Lydekker 1891 A, p. 373.

Gaudry, A. 1877 A.

1878 B, p. 63.

Gervais, P. 1859 A, p. 117.

Leidy, J. 1871 C, p. 357.

1872 B, p. 361.

1872 C, p. 19.

1873 B, p. 219.

Lydekker, R. 1886 A, p. 6.

Maack, G. A. 1865 A, p. 6.

Major, Fors. 1873 A, pp. 102, 204.

Nicholson and Lydekker 1889 A, p. 1364.

Osborn, H. F. 1892 B.

1898 I, p. 87, fig. 5.

Osborn and Wortman 1892 A, p. 131.

1895 A, pp. 358, 361.

Owen, R. 1844 A, p. 224.

1845 B, p. 606.

1848 A, p. 126.

1857 C.

1858 B, p. 78.

1860 E, p. 323.

Pictet, F. J. 1853 A, p. 504.

- Pomel, A. 1847 A, p. 203.
 Rüttimeyer, L. 1862 A.
 1891 A, p. 20.
 Schlosser, M. 1886 B, p. 27.
 1888 A, p. 585.

- Steinmann and Döderlein 1890 A, p. 771.
 Wilckens, M. 1885 B, p. 209.
 Wortman, J. L. 1896 A, p. 85.
 Wortman and Earle 1893 A, p. 173.
 Zittel, K. A. 1893 B, p. 276.

HEPTODON Cope. Type *Lophiodon ventorum* Cope.

- Cope, E. D. 1882 GG.
 Branco, W. 1897 A, p. 20.
 Cope, E. D. 1884 O, pp. 618, 653.
 1887 N, p. 994.
 Earle, C. 1893 C, p. 393.
 Nicholson and Lydekker 1889 A, p. 1356.
 Osborn, H. F. 1892 B, p. 763.
 Osborn and Wortman 1892 A, pp. 127-132.
 1896 A, p. 358.
 Schlosser M. 1886 B, p. 28.
 Scott, W. B. 1892 A, p. 431.
 Wortman, J. L. 1896 A, p. 85.
 Wortman and Earle 1893 A.
 Zittel, K. A. 1893 B, p. 275.

Heptodon calciculus Cope.

- Cope, E. D. 1880 N, p. 747. (*Lophiodon*.)
 1881 D, p. 197. (*Pachynolophus*.)
 1882 GG.
 1884 O, p. 656, pl. xxix, fig. 6.
 1887 N, p. 997, fig. 9.
 Matthew, W. D. 1899 A, p. 36.
 Osborn and Wortman 1892 A, p. 127, fig. 18.
 Roger, O. 1896 A, p. 181.
 Trouessart, E. L. 1896 A, p. 760.
 Wortman, J. L. 1896 A, p. 86.
 Wortman and Earle 1893 A, p. 177.
 Eocene (Wind River); Wyoming.

Heptodon posticus Cope.

- Cope, E. D. 1882 E, p. 187. (*Pachynolophus*.)
 1882 GG.
 1884 O, p. 654, pl. lvi, fig. 6.

HELALETES Marsh. Type *H. boops* Marsh.

- Marsh, O. C. 1872 I, p. 218.
 Cope, E. D. 1879 A, p. 43. (Syn. of *Tapirulus*.)
 1881 G, p. 381.
 1884 O, p. 618 (*Helaletes*); p. 698 (*Desmatotherium*).
 1887 N, p. 994 (*Helaletes*, *Dilophodon*); p. 1000 (*Desmatotherium*).
 Flower and Lydekker 1891 A, p. 375.
 Gaudry, A. 1897 A, p. 821.
 Marsh, O. C. 1877 E.
 Nicholson and Lydekker 1889 A, p. 1355.
 Osborn, H. F. 1890 D, p. 505.
 1892 B, p. 763.
 Osborn and Wortman 1892 A, pp. 82, 93, 127, 130.
 (*Helaletes*, *Desmatotherium*, *Dilophodon*.)
 1896 A, p. 358, 360.
 Schlosser, M. 1886 B, p. 27.
 Scott, W. B. 1883 A, p. 46 (*Desmatotherium*, type *D. guyotii*); p. 51 (*Dilophodon*, type *D. minusculus*); p. 53 (*Helaletes*).
 1892 A, p. 431.
 Scott and Osborn 1883 A, p. 12. (*Desmatotherium*.)
 1887 A, p. 260. (*Desmatotherium*.)

- Matthew, W. D. 1899 A, p. 33.
 Roger, O. 1896 A, p. 181.
 Trouessart, E. L. 1896 A, p. 760.
 Wortman, J. L. 1896 A, p. 86.
 Eocene (Wasatch); Wyoming.

Heptodon singularis Cope.

- Cope, E. D. 1875 C, p. 19. (*Hyrachyus*.)
 1877 K, p. 267, pl. lxvi, fig. 17. (*Hyrachyus*.)
 1884 O, p. 618, fig. 31.
 1887 N, p. 990, fig. 4.
 Matthew, W. D. 1899 A, p. 33.
 Roger, O. 1896 A, p. 181 (*Heptodon*); p. 185 (*Hyrachyus*).
 Schlosser, M. 1886 B, p. 28. (*Pachynolophus*.)
 Trouessart, E. L. 1896 A, p. 745 (*Hyrachyus*?); p. 761 (*Heptodon*?).
 Wortman, J. L. 1896 A, p. 86.
 Eocene (Wind River); New Mexico.

Heptodon ventorum Cope.

- Cope, E. D. 1880 N, p. 747. (*Lophiodon*.)
 1881 D, p. 197. (*Pachynolophus*.)
 1882 E, p. 187. (*Pachynolophus*.)
 1882 GG.
 1884 O, p. 654, pl. xxix, figs. 4, 5.
 1887 N, p. 997, fig. 9.
 Matthew, W. D. 1899 A, p. 36.
 Roger, O. 1896 A, p. 180.
 Trouessart, E. L. 1896 A, p. 760.
 Wortman, J. L. 1896 A, p. 86.
 Zittel, K. A. 1893 B, p. 275, fig. 217.
 Eocene (Wind River); Wyoming.

- Trouessart, E. L. 1896 A, p. 761. (*Helatetes*.)
 Wortman and Earle 1893 A.
 Zittel, K. A. 1893 B, p. 275.

Helaletes boops Marsh.

- Marsh, O. C. 1872 I, p. 218.
 Cope, E. D. 1873 E, p. 605. (*Hyrachyus*.)
 1873 U, p. 6. (*Hyrachyus*.)
 1884 O, p. 661.
 King, C. 1878 A, p. 404.
 Matthew, W. D. 1899 A, p. 45.
 Osborn and Wortman 1892 A, p. 131.
 1896 A, p. 360.
 Roger, O. 1896 A, p. 181.
 Trouessart, E. L. 1896 A, p. 761.
 Wortman and Earle 1893 A, p. 177.
 Eocene (Bridger); Wyoming.

Helaletes guyotii (Scott).

- Scott, W. B. 1883 A, p. 46, pl. viii. (*Desmatotherium*.)
 Cope, E. D. 1883 II, p. 970. (*Desmatotherium*.)
 Matthew, W. D. 1899 A, pp. 45, 49.
 Osborn, H. F. 1892 B.

Roger, O. 1896 A, p. 181.
 Trouessart, E. L. 1898 A, p. 761.
 Eocene (Bridger); Wyoming. (Uinta); Utah.

***Helaletes minusculus* (Scott).**

Scott, W. B. 1883 A, p. 51, pl. viii, fig. 4. (Dilophodon.)
 Cope, E. D. 1883 II, p. 970. (Dilophodon.)
 Matthew, W. D. 1899 A, p. 45.
 Roger, O. 1896 A, p. 181.
 Trouessart, E. L. 1898 A, p. 961.
 Wortman and Earle 1893 A, p. 130.
 Eocene (Bridger); Wyoming.

***Helaletes nanus* Marsh.**

Marsh, O. C. 1871 D, p. 37. (Lophiodon.)

Cope, E. D. 1873 E, p. 605. (Hyrachyus.)
 1873 U, p. 6. (Hyrachyus.)
 1884 O, p. 661. (Hyrachyus.)
 Leidy, J. 1872 B, p. 361 (Hyrachyus); p. 362 (Lophiodon.)
 1872 C, p. 20. (Hyrachyus.)
 1873 B, pp. 67, 327, pl. ii, fig. 14; pl. vi, fig. 42; pl. xxvi, fig. 11; pl. xxvii, figs. 21, 22. (Hyrachyus.)
 Marsh, O. C. 1872 I, p. 218.
 Matthew, W. D. 1899 A, p. 45.
 Osborn, H. F. 1896 A, p. 505.
 Osborn and Wortman 1895 A, p. 360.
 Trouessart, E. L. 1898 A, p. 761. (Syn. of *H. boops*.)
 Eocene (Bridger); Wyoming.

COLODON Marsh. Type *C. luxatus* Marsh.

Marsh, O. C. 1890 D, p. 524.
 Earle, C. 1893 C, p. 393. (Colodon.)
 Gaudry, A. 1897 A. (Colodon.)
 Osborn, H. F. 1893 D. (Colodon.)
 Osborn and Wortman 1895 A, pp. 358, 362. (Colodon.)
 Scott, W. B. 1892 A, p. 430. (Mesotapirus.)
 Scott and Osborn 1890 A, p. 524. (Mesotapirus, conjectural.)
 Wortman, J. L. 1893 A. (Colodon.)
 Wortman and Earle 1893 A, p. 173. (Colodon, Mesotapirus.)
 Zittel, K. A. 1893 B, p. 275. (Colodon.)

***Colodon dakotensis* Osb. and Wort.**

Osborn and Wortman 1895 A, p. 362, fig. 7. (Colodon.)
 Hatcher, J. B. 1896 B, p. 171, pl. iii, figs. 3, 3 a. (Colodon.)
 Matthew, W. D. 1899 A, p. 56. (Colodon.)
 Trouessart, E. L. 1898 A, p. 761. (Colodon.)
 Oligocene (White River); South Dakota.

***Colodon longipes* Osb. and Wort.**

Osborn and Wortman 1894 A, p. 214. (?Mesohippus.)
 Hatcher, J. B. 1896 B, p. 169. (Syn.? of *Colodon occidentalis*.)
 Matthew, W. D. 1899 A, p. 56. (Colodon.)
 Osborn and Wortman 1895 A, p. 366. (Colodon ?.)
 Roger, O. 1896 A, p. 174. (Mesohippus ?.)
 Trouessart, E. L. 1898 A, p. 761. (Colodon.)
 Oligocene (White River); South Dakota.

***Colodon luxatus* Marsh.**

Marsh, O. C. 1890 D, p. 524. (Colodon.)
 Hatcher, J. B. 1896 B, p. 170. (Syn. of *Colodon occidentalis*.)

Marsh, O. C. 1893 D, p. 411, pl. x. (Colodon.)
 Matthew, W. D. 1899 A, p. 56. (Colodon.)
 Roger, O. 1896 A, p. 181. (Syn. of *Colodon occidentalis*.)
 Wortman and Earle 1893 A, p. 174. (Syn. of *Colodon occidentalis*.)
 Oligocene (White River); South Dakota.
***Colodon occidentalis* (Leidy).**
 Leidy, J. 1868 I, p. 232. (Lophiodon.)
 Hatcher, J. B. 1896 B, p. 170, pl. iii, figs. 2, 6, 7. (Colodon.)
 Leidy, J. 1869 A, pp. 239, 391, pl. xxi, figs. 28-30. (Lophiodon.)
 1870 P, p. 112. (Lophiodon.)
 1871 C, p. 357. (Lophiodon.)
 1873 B, pp. 219, 327 (Lophiodon *occidentalis*; pl. ii, fig. 1 (Lophiodon *oregonensis*)).
 Matthew, W. D. 1899 A, pp. 56, 63. (Colodon.)
 Osborn and Wortman 1895 A, pp. 362, 365. (Colodon.)
 Roger, O. 1896 A, p. 181. (C. *occidentalis*.)
 Scott and Osborn, 1890 A, p. 524.
 Trouessart, E. L. 1898 A, p. 762.
 Wortman and Earle 1893 A, p. 174, figs. 6, 7. (Colodon.)
 Oligocene (White River); South Dakota;
 Miocene (John Day); Oregon.

***Colodon procuspidatus* Osb. and Wort.**

Osborn and Wortman 1895 A, pp. 362, 364, fig. 8.
 Hatcher, J. B. 1896 B, p. 170. (Syn.? of *C. occidentalis*.)
 Matthew, W. D. 1899 A, p. 56. (Colodon.)
 Trouessart, E. L. 1898 A, p. 170. (Colodon.)
 Oligocene (White River); South Dakota.

TAPIRIDÆ.

Blainville, H. M. D. 1864 A, iv, Z, p. 1, pls. i-vi.
 Branco, W. 1897 A, p. 19.
 Cope, E. D. 1874 M.
 1879 C, p. 228.
 1881 G, pp. 378, 395.
 1881 O.
 1884 O, pp. 615, 698.
 1887 N.
 Cuvier, G. 1834 A, pp. 273-430, 542, with plates.

Earle, C. 1893 C.
 1896 B.
 Flower, W. H. 1876 B, xiii, p. 328.
 Flower and Lydekker 1891 A, p. 370.
 Gaudry, A. 1897 A.
 Ghigi, A. 1900 A, p. 17.
 Gray, J. E. 1867 A, p. 878. (Tapiridæ, Tapirinae.)
 1869 A, p. 252 (Tapiridæ); p. 253 (Tapirinae.)
 Hatcher, J. B. 1896 B.

Huxley, T. H. 1872 A, p. 310.

Leidy, J. 1871 C, p. 357.

Lydekker, R. 1886 A, p. 2.
1886 B.

Nicholson and Lydekker 1889 A, p. 1354.

Osborn, H. F. 1890 D, p. 542.

1898 D, p. 37. (Tapiridae, Tapirinae; Systemodontinae, in part.)

1898 I, p. 79.

Osborn and Wortman 1892 A, p. 93. (Systemodontinae, Tapirinae.)

Owen, R. 1845 B, p. 604.

Pavlov, M. 1887 A, p. 353.

1888 A, p. 173.

Roger, O. 1896 A, p. 180.

Rütimeyer, L. 1888 A, p. 14.

Schlosser, M. 1886 A, p. 253.
1886 B, p. 27.

1888 A.

Slade, D. D. 1893 A.

Steinmann and Döderlein 1890 A, p. 771.

Trouessart, E. L. 1898 A, p. 760 (Tapiridae); p. 764 (Tapirinae).

Woodward, A. S. 1838 B, p. 321.

Wortman and Earle 1893 A. (Tapiridae, Tapirinae; Systemodontinae, in part.)

Zittel, K. A. 1893 B, p. 273 (Tapiridae); p. 276 (Tapirinae).

HOMOGALAX Hay. Type *Systemodon primævus* Wort.

Hay, O. P. 1899 A, p. 593.

Osborn, H. F. 1898 I, p. 87. (Systemodon.)

Trouessart, E. L. 1898 A, p. 765. (Systemodon.)

Wortman, J. L. 1896 A. (Systemodon.)

For the literature of *Systemodon*, which bears more or less on the species here included under *Homogalax*, see under *Eohippus*.

Homogalax primævus (Wort.).

Wortman, J. L. 1896 A, p. 89, fig. 3. (Systemodon.)

Hay, O. P. 1899 A, p. 593.

Matthew, W. D. 1899 A, p. 34. (Systemodon.)

Osborn and Wortman 1892 A, p. 125. (Systemodon tapirinus, in part.)

Trouessart, E. L. 1898 A, p. 765. (Systemodon.)

Eocene (Wasatch); Wyoming.

Homogalax protapirinus (Wort.).

Wortman, J. L. 1896 A, pp. 89, 90. (Systemodon.)

Hay, O. P. 1899 A, p. 593.

Matthew, W. D. 1899 A, p. 34. (Systemodon.)

Trouessart, E. L. 1898 A, p. 765. (Systemodon.)

Eocene (Wasatch); Wyoming.

Homogalax semihians (Cope).

Cope, E. D. 1882 A, p. 184. (Systemodon.)

1884 O, pp. 619, 622, pl. lvi, figs. 3, 4. (Systemodon.)

Hay, O. P. 1899 A, p. 593.

Matthew, W. D. 1899 A, p. 34. (Systemodon.)

Osborn and Wortman 1892 A, pp. 124, 126. (Systemodon.)

Roger, O. 1896 A, p. 183. (Systemodon.)

Scott, W. B. 1892 A, p. 430. (Systemodon.)

Trouessart, E. L. 1898 A, p. 765. (Systemodon.)

Wortman, J. L. 1896 A, p. 89. (Systemodon.)

Eocene (Wasatch); Wyoming.

ISECTOLOPHUS Scott and Osb. Type *I. annectens* Scott and Osb.

Scott and Osborn 1887 A, p. 260.

Cope, E. D. 1887 N, p. 994.

1890 C, p. 470.

Earle, C. 1893 C.

Flower and Lydekker 1891 A, p. 374.

Hatcher, J. B. 1896 B, p. 177.

Nicholson and Lydekker 1889 A, p. 1855.

Osborn, H. F. 1890 D, p. 518.

1892 B, p. 764.

Osborn, Scott, and Speir 1878 A, p. 54, part. (Helaletes.)

Scott, W. B. 1892 A, p. 430.

Wortman and Earle 1893 A.

Zittel, K. A. 1893 B, p. 277.

Isectolophus annectens Scott and Osb.

Scott and Osborn 1887 A, p. 260.

Hatcher, J. B. 1896 B, p. 177.

Matthew, W. D. 1899 A, p. 49.

Osborn, H. F. 1890 D, p. 520, pl. x.

1892 B, p. 764.

1896 A, p. 98.

Roger, O. 1896 A, p. 183.

Trouessart, E. L. 1898 A, p. 765.

Wortman and Earle 1893 A, p. 171.

Eocene (Uinta); Wyoming.

Isectolophus latidens Scott and Osb.

Osborn, Scott, and Speir 1878 A, p. 54. (Helaletes.)

Hatcher, J. B. 1896 B, p. 177.

Matthew, W. D. 1899 A, p. 45.

Osborn, H. F. 1890 D, p. 519.

Trouessart, E. L. 1898 A, p. 765.

Wortman and Earle 1893 A, p. 170.

Eocene (Bridger); Wyoming.

PROTAPIRUS Filhol. Type *P. priscus* Filhol=*P. filholi* Troues.

Filhol, H. 1877 A, p. 131.

Cope, E. D. 1887 N, pp. 994, 996.

Earle, C. 1893 C.

1896 B, p. 934.

Filhol, H. 1885 A, p. 1.

Gaudry, A. 1897 A, p. 320.

Hatcher, J. B. 1896 B.

Wortman, J. L. 1893 A.

Wortman and Earle 1893 A, p. 161.

Zittel, K. A. 1893 B, p. 278.

Protapirus obliquidens Wort. and Earle.

Wortman and Earle 1893 A, p. 162, figs. 1-4.

Earle, C. 1893 C, p. 395.

Hatcher, J. B. 1896 B, p. 162.

Matthew, W. D. 1899 A, p. 56.
 Roger, O. 1896 A, p. 183.
 Trouessart, E. L. 1898 A, p. 766.
 Oligocene (White River); South Dakota.

Protapirus simplex Wort. and Earle.

Wortman and Earle 1893 A, p. 168, fig. 1, A.
 Earle, C. 1893 C, p. 394.
 Hatcher, J. B. 1896 B, p. 163, pl. iii, figs. 5, 5a.
 Matthew, W. D. 1899 A, p. 56.
 Roger, O. 1896 A, p. 183.

Trouessart, E. L. 1898 A, p. 766.
 Oligocene (White River); South Dakota.

Protapirus validus Hatcher.

Hatcher, J. B. 1896 B, p. 162, pl. ii, figs. 1-4; text figs. 1, 2.
 Earle, C. 1896 B, p. 394.
 Matthew, W. D. 1899 A, p. 56.
 Roger, O. 1896 A, p. 183.
 Trouessart, E. L. 1898 A, p. 766.
 Oligocene (White River); South Dakota.

TAPIRAVUS Marsh. Type *T. validus* Marsh.

Marsh, O. C. 1877 D, p. 262.
 Cope, E. D. 1887 N, pp. 996, 1007.
 Earle, C. 1893 C, p. 345.
 Hatcher, J. B. 1896 B, p. 178.
 Marsh, O. C. 1877 E.
 Scott, W. B. 1883 A, p. 50.
 Zittel, K. A. 1893 B, p. 278.

Tapiravus rarus Marsh.

Marsh, O. C. 1877 D, p. 262.
 King, C. 1878 A, p. 430.

Matthew, W. D. 1899 A, p. 71.
 Roger, O. 1896 A, p. 183.
 Trouessart, E. L. 1898 A, p. 766.
 "Pliocene"; Rocky Mountain region.

Tapiravus validus Marsh.

Marsh, O. C. 1871 F. (Lophiodon.)
 Hatcher, J. B. 1896 B, p. 178.
 Marsh, O. C. 1877 D, p. 262.
 Trouessart, E. L. 1898 A, p. 766.
 Miocene; New Jersey.

TANYOPS Marsh. Type *T. undans* Marsh.

Marsh, O. C. 1894 M, p. 348.

Tanyops undans Marsh.

Marsh, O. C. 1894 M, p. 348.
 Miocene; South Dakota.

TAPIRUS Brisson. Type *Hippopotamus terrestris* Linn.

Brisson, 1762, Regnum Anim., p. 176. (Fide C. H. Merriam.)
 Blainville, H. M. D. 1864 A, iv, Z, p. 1, plates.
 Branco, W. 1897 A, p. 20.
 Cope, E. D. 1873 E, p. 594.
 1873 H, p. 212.
 1881 G, p. 396.
 1887 N, p. 1007.
 1889 C, p. 254.
 Cope and Wortman 1884 A, p. 26.
 Cuvier, G. 1834 A, iii, pp. 278-430, with plates.
 Döderlein, L. 1878 A.
 Earle, C. 1893 A.
 1893 C.
 Flower and Lydekker 1891 A, p. 370.
 Ghigi, A. 1900 A, p. 17.
 Gray, J. E. 1867 A, p. 879.
 1869 A, p. 254.
 Hatcher, J. B. 1896 A, p. 173.
 Huxley, T. H. 1872 A, p. 311.
 Kowalevsky, W. 1873 A, pp. 218, 222.
 Leuthardt, F. 1891 A, p. 113.
 Lydekker, R. 1886 A, p. 3.
 Meyer, H. 1867 A.
 Nicholson and Lydekker 1889 A, p. 1354.
 Owen, R. 1845 B, p. 604.
 1866 B, p. 444, figs. 299, 301.
 1868 A, p. 357.
 Paullil, S. 1900 A, p. 182.
 Pictet, F. J. 1853 A, p. 301.
 Rüttimeyer, L. 1862 A.
 Scott, W. B. 1892 A, p. 431.
 Trouessart, E. L. 1898 A, p. 767.
 Wortman and Earle 1893 A.
 Zittel, K. A. 1893 B, p. 278.

Tapirus haysii Leidy.

Leidy, J. 1860 B, p. 106, pl. xvii, figs. 4, 7-10.
 Cope, E. D. 1869 E, p. 176, pl. iii, fig. 6.
 1869 J.
 1871 I, p. 96.
 1896 F, p. 447.
 1896 G, p. 597.
 1899 A, p. 253.
 Cope and Wortman 1884 A, p. 26.
 Hays, I. 1852 A. ("Tapir.")
 Leidy, J. 1852 G. (No description.)
 1852 I. (No description.)
 1860 B, p. 106, pl. xvii, figs. 4, 7-10.
 1873 B, p. 391.
 Meyer, H. 1867 A, p. 169.
 Roger, O. 1896 A, p. 184.
 Trouessart, E. L. 1898 A, p. 769. [T. (Elasmognathus).]
 Wallis, B. C. L. 1854 A, p. 286.
 Pleistocene; South Carolina, Mississippi, Virginia, Pennsylvania, Indiana.
Tapirus terrestris (Linn.).
 Linnæus, C., 1758, Syst. Nat., ed. 10, i, p. 74. (Hippopotamus.)
 Unless otherwise indicated, the following authors call the species *T. americanus*.
 Blake, W. P. 1868 A. ("Tapir.")
 Carpenter, W. M. 1846 A, p. 247, figs. 3, 4. ("Tapir.")
 Cope, E. D. 1871 I, p. 96.
 Cope and Wortman 1884 A, p. 26. (T. terrestris.)
 Earle, C. 1893 A.
 Ghigi, A. 1900 A, p. 22.
 Gray, J. E. 1867 A, p. 879. (T. terrestris.)

Hatcher, J. B. 1896 B, p. 174.
 Holmes, F. S. 1858 B.
 1859 A, p. 183.
 Kindle, E. M. 1898 A, p. 485. (T. terrestris?)
 Leidy, J. 1849 A.
 1860 B, p. 106, pl. xvii, figs. 1-3, 6, 11, 12.
 1869 A, p. 391.
 1884 B.
 1889 B.
 1889 E, p. 19.
 1892 A.

Roger, O. 1896 A, p. 185.
 Wallis, B. C. L. 1854 A, App., p. 285.
 Wheatley, C. M. 1871 A. ("Tapir.")
 Whitney, J. D. 1879 A, p. 250.
 Pleistocene; Virginia, Illinois, California,
 Texas, Louisiana, Kentucky, Mississippi, In-
 diana, Ohio, South Carolina.
 Prof. E. D. Cope (1899 A, p. 253) refers all
 specimens of fossil *Tapirus* found in the United
 States to *T. haysii*.

Superfamily BRONTOTHERIOIDEA.

Osborn, H. F. 1898 I, p. 79. (Titanotheriidae.)

BRONTOTHERIIDÆ.

Marsh, O. C. 1873 H, p. 496. (Brontotheriidae.)
 Brandt, J. F. 1878 A, pp. 10, 19. (Brontotheriinae.)
 Cope, E. D. 1881 G, pp. 378, 379, 397. (Menodonti-
 tidae.)
 1884 O, pp. 615, 713. (Menodontiidae.)
 1887 L, p. 926. (Menodontiidae.)
 1887 N. (Menodontiidae.)
 1889 C, p. 158. (Menodontiidae.)
 1898 B, p. 135. (Menodontiidae.)
 Earle, C. 1892 C, p. 273. (Titanotheriidae.)
 Flower, W. H. 1876 B, xlii, p. 327. (Titanotheri-
 idae.)
 1876 C, p. 109. (Titanotheriidae.)
 Flower and Lydekker 1891 A, p. 413. (Titanotheri-
 idae.)
 Gervais, P. 1876 B. (Brontotheriidae.)
 Hatcher, J. B. 1893 B, p. 216. (Titanotheriidae.)
 Lydekker, R. 1896 B, pp. 170, 377. (Titanotheri-
 idae.)
 Marsh, O. C. 1874 A, p. 66. (Brontotheriidae.)
 1874 D, p. 81. (Brontotheriidae.)
 1875 B, p. 245. (Brontotheriidae.)
 1876 C. (Brontotheriidae.)
 1876 G, p. 60. (Brontotheriidae.)
 1877 E. (Brontotheriidae.)

Marsh, O. C. 1884 F, p. 190. (Brontotheriidae.)
 1887 B, p. 336. (Brontotheriidae.)
 1889 A, p. 163. (Brontotheriidae.)
 1889 H. (Brontotheriidae.)
 1895 D, p. 498. (Brontotheriidae.)
 1897 D, p. 166. (Brontotheriidae.)
 Nature 1874 A.
 Nicholson and Lydekker 1889 A, p. 1374. (Titanotheri-
 idae.)
 Osborn, H. F. 1890 D, p. 614. (Titanotheriidae.)
 1893 D. (Titanotheriidae.)
 1897 D. (Titanotheriidae.)
 1898 I, p. 79. (Titanotheriidae.)
 1900 C, p. 570. ("Titanotheres.")
 Osborn and Wortman 1892 A, p. 93. (Titanotheri-
 idae.)
 Roger, O. 1896 A, p. 192. (Titanotheriidae.)
 Schlosser, M. 1886 B, p. 31. (Menodontiidae.)
 1888 A, p. 588. ("Brontotherien.")
 Scott and Osborn 1887 B, p. 157. (Menodontiidae.)
 Steinman and Döderlein 1890 A, p. 777. (Bronto-
 theriidae.)
 Woodward, A. S. 1896 B, p. 329. (Titanotheriidae.)
 Zittel, K. A. 1893 B, p. 298. (Titanotheriidae.)

LAMBDOTHERIIDÆ.

Earle, C. 1892 C, p. 274. (Palaeosyopinae.)
 Flower and Lydekker 1891 A, p. 413. (Lambdo-
 theriidae.)
 Nicholson and Lydekker 1889 A, p. 1371. (Lamb-
 dotheriidae.)
 Osborn, H. F. 1893 D, p. 87.

Osborn and Wortman 1892 A, p. 93.
 Roger, O. 1896 A, p. 192.
 Steinmann and Döderlein 1890 A, p. 777.
 Trouessart, E. L. 1898 A, p. 737.
 Zittel, K. A. 1893 B, p. 300.

LAMBDOTHERIUM Cope. Type *L. popoagicum* Cope.

Cope, E. D. 1880 N, p. 746.
 1881 G, p. 396.
 1884 O, pp. 694, 709.
 1887 N.
 Earle, C. 1892 C.
 Flower and Lydekker 1891 A, p. 413.
 Nicholson and Lydekker 1889 A, p. 1372.
 Osborn, H. F. 1897 A.
 1897 D.
 Schlosser, M. 1886 B, p. 19.
 1887 A, p. 576.
 Scott, W. B. 1892 A, p. 432.
 Wortman, J. L. 1883 A, p. 710.
 1886 A, p. 480.
 Zittel, K. A. 1893 B, p. 300.

Lambdotherium popoagicum Cope.
 Cope, E. D. 1880 N, p. 746.
 1881 D, p. 196.
 1884 O, pp. 710, pl. xxix, fig. 7; pl. lviii,
 figs. 3-5.
 1887 N, p. 1060, figs. 24, 26.
 1887 S, p. 275, pl. vii, figs. 5, 6.
 Matthew, W. D. 1899 A, p. 36.
 Osborn, H. F. 1897 A.
 1897 G, p. 256.
 Roger, O. 1896 A, p. 192.
 Trouessart, E. L. 1898 A, p. 737.
 Eocene (Wind River); Wyoming, Colorado.

LIMNOHYOPS Marsh. Type *L. laticeps* Marsh.

- Marsh, O. C. 1890 D, p. 525.
 Cary, A. 1892 A.
 Cope, E. D. 1873 E, p. 598. (Limnohyus.)
 1881 G, p. 396. (Limnohyus.)
 1884 O, pp. 697, 705. (Limnohyus.)
 1887 N, p. 1061. (Limnohyus.)
 Earle, C. 1891 B, p. 118.
 1892 C, pp. 270, 276, 350.
 Leidy, J. 1872 H, p. 241. (Limnohyus, type *L. laticeps*, not Limnohyus Marsh.)
 1873 B, pp. 57, 323. (Limnohyus.)
 Marsh, O. C. 1872 G, p. 124. (Palaeosyops, type *P. laticeps*, not Palaeosyops Leidy, 1870.)
 Matthew, W. D. 1899 A, p. 47. (Syn. of Palaeosyops.)
 Osborn, Scott, and Speir 1878 A, p. 41. (Limnohyus.)
 Schlosser, M. 1886 B, p. 18. (Limnohyus.)
 Zittel, K. A. 1893 B, p. 303.
- Limnohyops fontinalis (Cope).**
 Cope, E. D. 1873 B, p. 85. (Palaeosyops.)
 1873 E, p. 594. (Limnohyus.)
 1884 O, p. 707, pl. xlix, fig. 9; pl. l, fig. 4; pl. lviii, figs. 4, 5. (Limnohyus.)
 Earle, C. 1891 B, p. 115.
 1892 C, p. 368.

- Matthew, W. D. 1899 A, p. 47. (Palaeosyops.)
 Roger, O. 1896 A, p. 193.
 Trouessart, E. L. 1896 A, p. 788.
 Eocene (Bridger); Wyoming.

Limnohyops laticeps Marsh.

- Marsh, O. C. 1872 G, p. 122. (Palaeosyops.)
 Cope, E. D. 1884 O, p. 707. (Limnohyus.)
 Earle, C. 1891 B, p. 114.
 1892 C, pp. 269, 351, pl. xi, figs. 8, 9; pl. xii, figs. 24-27; pl. xiv, figs. 39-42; p. 330, pl. xii, figs. 14-16; pl. xiv, figs. 43, 44. (Palaeosyops minor, not of Marsh.)
 Leidy, J. 1873 B, pp. 28-45 (in part); pl. iv, figs. 3-6; pl. v, figs. 10, 11; pl. xxiv, figs. 6, 7 (Palaeosyops paludosus); pp. 58, 326, pl. xxiii, fig. 13 (Limnohyus.)
 Marsh, O. C. 1884 F, fig. 68. (Palaeosyops.)
 1890 D, p. 525.
 Matthew, W. D. 1897 A, p. 57. (Palaeosyops.)
 1899 A, p. 47. (Palaeosyops.)
 Osborn, Scott, and Speir 1878 A, p. 42. (Limnohyus.)
 Roger, O. 1896 A, p. 193.
 Trouessart, E. L. 1896 A, p. 788.
 Eocene (Bridger); Wyoming.

PALAEOSYOPS Leidy. Type *P. paludosus* Leidy.

- Leidy, J. 1870 Q, p. 113.
 Cope, E. D. 1873 E, p. 591.
 1881 G, p. 396.
 1884 O, pp. 694, 697.
 1887 N, p. 1061.
 1892 R.
 Earle, C. 1891 B.
 1892 C.
 1896 A.
 Flower, W. H. 1876 B, xlii, p. 327.
 Hatcher, J. B. 1895 A, p. 1090. (Manteoceras, type *M. vallidens*=*P. manteoceras* Osb., not *P. vallidens* Cope.)
 Leidy, J. 1871 C, p. 354.
 1871 G.
 1872 B, p. 358.
 1872 H, p. 241.
 1873 B, p. 27, pl. xxxi, fig. 1.
 Marsh, O. C. 1872 G, p. 124. (Limnohyus, type *L. robustus*.)
 1877 E. (Limnohyus.)
 Matthew, W. D. 1897 A.
 Nicholson and Lydekker 1889 A, p. 1872.
 Osborn, H. F. 1883 A, p. 31.
 1890 D, pp. 513, 553.
 1895 A, p. 87. (Manteoceras=*Telmatherium*.)
 1897 D.
 Osborn, Scott, and Speir 1878 A, p. 27.
 Osborn and Wortman 1892 A, p. 132.
 Schlosser, M. 1886 B, p. 18.
 Scott, W. B. 1886 A, p. 307.
 1891 B, p. 371 seq.
 1892 A, p. 432.

- Steinmann and Döderlein 1890 A, p. 777.
 Woodward, A. S. 1896 B, p. 332.
 Zittel, K. A. 1893 B, p. 301.

Palaeosyops humilis Leidy.

- Leidy, J. 1872 G.
 1872 A.
 1872 H, p. 242. (Limnohyus.)
 1873 B, pp. 58, 326, pl. xxiv, fig. 8.
 Matthew, W. D. 1899 A, p. 47.
 Roger, O. 1896 A, p. 193.
 Trouessart, E. L. 1896 A, p. 789.
 Eocene (Bridger); Wyoming.

Palaeosyops junior Leidy.

- Leidy, J. 1872 J, p. 277.
 1873 B, pp. 57, 326.
 Matthew, W. D. 1899 A, p. 47.
 Roger, O. 1896 A, p. 193.
 Trouessart, E. L. 1896 A, p. 739.
 Eocene (Bridger); Wyoming.
 Probably belongs to *P. paludosus*.

Palaeosyops laevidens Cope.

- Cope, E. D. 1873 E, p. 591. (Limnohyus.)
 1884 O, pp. 699, 701, pl. l, figs. 1-3.
 Earle, C. 1892 C, p. 317.
 Leidy, J. 1872 B, p. 359. (*P. paludosus*, *ide* Cope.)
 Matthew, W. D. 1899 A, p. 47. (Syn. of *P. laticeps*.)
 Roger, O. 1896 A, p. 192.
 Trouessart, E. L. 1896 A, p. 738.
 Eocene (Bridger); Wyoming.

Palaeosyops longirostris Earle.

- Earle, C. 1892 C, p. 338.
 Matthew, W. D. 1899 A, p. 47. (Syn.? of *Telmatotherium megarhinum*.)
 Roger, O. 1896 A, p. 193.
 Trouessart, E. L. 1898 A, p. 739.
 Eocene (Bridger); Wyoming.

Palaeosyops paludosus Leidy.

- Leidy, J. 1870 Q, p. 113.
 Cope, E. D. 1873 B, p. 35. (P. *laevicens*.)
 1873 E, pp. 592, 593. (P. *major*, *Limnohyus paludosus*, L. *diaconus*.)
 1873 U, p. 4. (P. *diaconus* sp. nov.)
 1884 O, p. 105 (P. *paludosus*); pp. 698, 699, 701, pl. II, fig. 2; pl. III, figs. 1, 2 (P. *major*); p. 706, pl. II, fig. 3 (L. *diaconus*.)
 1887 N, p. 1062, fig. 27. (P. *major*.)
 Earle, C. 1891 B, p. 115. (L. *diaconus*, invalid.)
 1892 C, p. 279, pl. x, fig. 1; pl. xii, figs. 17-23; pl. xiii; pl. xiv, figs. 45-49, and text figures.
 1896 A, p. 624.
 King, C. 1878 A, p. 404.
 Leidy, J. 1871 B, p. 373. (P. *major*.)
 1871 C, p. 355.
 1871 I.
 1871 K, p. 229. (P. *major*; orig. description.)
 1872 B, pp. 359, 365. (P. *major*.)
 1872 G, p. 168.

- Leidy, J. 1872 H, p. 241. (P. *major*.)
 1873 B, pp. 28, 325, pl. IV, figs. 1, 2, 7, 8; pl. V, figs. 4-11; pl. XIX, figs. 1-4; pl. XX, figs. 1-7; pl. XXII, figs. 3-6; pl. XXIV, figs. 6, 7; pl. XXIX, fig. 5 (P. *paludosus*); pp. 45, 326, pl. XX, fig. 8; pl. XXIII, figs. 1, 2, 7-12, 14-16; pl. XXIV, figs. 1-5 (P. *major*.)
 1873 E, p. 592. (P. *major*.)
 L. P. B. 1885 A, p. 191, fig. 24. (P. *robustus*.)
 Marsh, O. C. 1872 G, pp. 122, 124 (P. *paludosus*); p. 124 (P. *robustus* sp. nov.).
 1885 B, fig. 105. (P. *robustus*.)
 1885 F, fig. 69. (P. *robustus*.)
 Matthew, W. D. 1897 A, p. 57.
 1899 A, p. 46.
 Osborn, H. F. 1898 Q, p. 11.
 Osborn, Scott, and Speir 1878 A, p. 27, pl. II, figs. 1-13; pl. III, fig. 8; pl. V (P. *major*); p. 34, pl. I; pl. III, figs. 1-9 (P. *paludosus*.)
 Roger, O. 1896 A, p. 192 (P. *paludosus*); p. 193 (*Limnohyus diaconus*.)
 Trouessart, E. L. 1898 A, p. 738. (P. *paludosus*, *Limnohyus diaconus*.)
 Zittel, K. A. 1893 B, p. 301, fig. 242 (P. *major*); p. 302, fig. 244 (P. *paludosus*.)
 Eocene (Bridger); Wyoming.

Palaeosyops ultimus Matth.

- Matthew, W. D. 1897 A, p. 57. (No description.)
 1899 A, p. 50. (No description.)
 Eocene (Uinta); Utah.

TELMATHERIUM Marsh. Type *T. validum* Marsh.

- Marsh, O. C. 1872 G, p. 123.
 Cope, E. D. 1879 W, p. 33. (*Leurocephalus*.)
 1881 G, p. 396. (*Leurocephalus*.)
 1884 O, p. 694. (*Leurocephalus*.)
 1887 N, p. 1061. (*Leurocephalus*.)
 Earle, C. 1891 B, p. 115. (*Telmatotherium*.)
 1892 C, pp. 269, 341. (*Telmatotherium*.)
 1896 A, p. 627. (*Telmatotherium*.)
 Hatcher, J. B. 1895 A. (*Telmatotherium*.)
 Leidy, J. 1873 B, p. 323. (Syn. of *Palaeosyops*.)
 Marsh, O. C. 1880 H, p. 10. (*Telmatotherium*.)
 Osborn, H. F. 1895 A, p. 82. (*Telmatotherium*.)
 1897 D. (*Telmatotherium*.)
 Osborn, Scott, and Speir 1878 A, p. 42. (*Leurocephalus*, type L. *cultridens*.)
 Scott, W. B. 1892 A, p. 432.
 Zittel, K. A. 1893 B, p. 308. (*Telmatotherium*.)

Telmatotherium boreale (Cope).

- Cope, E. D. 1880 N, p. 746. (*Palaeosyops*.)
 1881 D, p. 196 (*Palaeosyops*); p. 196 (*Lambdotherium brownianum*.)
 1884 O, pp. 699, 703, pl. LVIII, fig. 3 (*Palaeosyops*); p. 709, pl. LVIIA, fig. 10 (*Lambdotherium brownianum*.)
 Earle, C. 1892 C, pp. 319, 384. (*Palaeosyops*.)
 Matthew, W. D. 1897 A, p. 57. (*Palaeosyops*.)
 1899 A, p. 36. (*Telmatotherium*.)
 Osborn, H. F. 1897 D.
 Osborn and Wortman 1892 A, p. 132, fig. 19. (*Palaeosyops*.)

- Roger, O. 1896 A, p. 193. (*Palaeosyops borealis*, *Lambdotherium brownianum*.)
 Trouessart, E. L. 1898 A, p. 737 (*Lambdotherium brownianum*); p. 738 (*Palaeosyops*.)
 Eocene (Wind River); Wyoming.

Telmatotherium cultridens (Scott and Osb.).

- Osborn, Scott, and Speir 1878 A, p. 42, pl. IV. (*Leurocephalus*.)
 Earle, C. 1891 B, p. 116. (*Telmatotherium*.)
 1892 C, pp. 269, 343, pl. x, fig. 3; pl. xii, figs. 12, 13. (*Telmatotherium*.)
 Matthew, W. D. 1897 A, p. 58. (*Telmatotherium*.)
 1899 A, p. 47. (*Telmatotherium*.)
 Osborn, H. F. 1895 A, pp. 83, 95. (*Telmatotherium*.)
 Osborn and Wortman 1892 A, p. 134. (*Telmatotherium*.)
 Roger, O. 1896 A, p. 193.
 Trouessart, E. L. 1898 A, p. 739. (*Telmatotherium*.)
 Eocene (Bridger); Wyoming.

Telmatotherium diploconum Osborn.

- Osborn, H. F. 1895 A, p. 85, fig. 6. (*Telmatotherium*.)
 Matthew, W. D. 1899 A, p. 50. (Variety *minus*.)
 Roger, O. 1896 A, p. 193.
 Trouessart, E. L. 1898 A, p. 740. (*Telmatotherium*.)
 Eocene (Uinta); Utah.

Telmatherium hyognathum (Scott and Osb.).

- Scott and Osborn 1890 A, p. 513. (Palaeosyops.)
 Earle, C. 1891 B, p. 116. (Palaeosyops.)
 1892 C, p. 348, pl. x, figs. 10, 11. (Telmatotherium.)
 Matthew, W. D. 1897 A, p. 57. (Telmatotherium.)
 1899 A, p. 47 (Syn. of *T. validum*); p. 50 (Telmatotherium hyognathum).
 Osborn, H. F. 1896 A, pp. 83, 87. (Telmatotherium.)
 Roger, O. 1896 A, p. 193.
 Trouessart, E. L. 1898 A, p. 740. (Telmatotherium.)
 Eocene (Bridger); Wyoming: (Uinta); Utah.

Telmatherium megarhinum (Earle).

- Earle, C. 1891 A, p. 45. (Palaeosyops.)
 1891 B, p. 117. (Palaeosyops.)
 1892 C, p. 321, pl. x, fig. 2; pl. xi, figs. 4-7 (Palaeosyops megarhinum); p. 330, pl. xii, figs. 14-16; pl. xiv, figs. 43, 44 (P. minor, *Id. Wortman in litt.*).
 1896 A, p. 623. (Palaeosyops.)
 Leidy, J. 1873 B, pp. 28-45, in part; pl. iv, figs. 8-6; pl. v, figs. 10, 11; pl. xxiv, figs. 6, 7. (Palaeosyops paludosus, *Id. Earle*.)
 Matthew, W. D. 1899 A, p. 47. (Telmatotherium.)
 Osborn, H. F. 1896 A, pp. 83, 84. (Telmatotherium.)
 Roger, O. 1896 A, p. 193.

- Trouessart, E. L. 1898 A, p. 738, in part (*Palaeosyops minor*); p. 739 (*P. megarhinum*).
 Eocene (Bridger); Wyoming.

Telmatherium validum Marsh.

- Marsh, O. C. 1872 G, p. 123.
 Cope, E. D. 1884 O, p. 699, in part; pl. II, fig. 1. (Palaeosyops validens.)
 Earle, C. 1891 B, p. 116. (Telmatotherium.)
 1892 C, p. 342. (Telmatotherium.)
 Matthew, W. D. 1899 A, p. 47. (Telmatotherium.)
 Osborn, H. F. 1896 A, pp. 82, 94. (Telmatotherium.)
 Osborn, Scott, and Speir 1878 A, p. 40. (Palaeosyops validens.)
 Roger, O. 1896 A, p. 193. (*T. validum*, *T. validens*.)
 Trouessart, E. L. 1898 A, p. 739. (Telmatotherium.)
 Eocene (Bridger); Wyoming.

Telmatherium validens (Cope).

- Cope, E. D. 1872 S, p. 487. (Palaeosyops.)
 1873 E, p. 592. (Palaeosyops.)
 1884 O, p. 699, pl. III, fig. 3; pl. III, fig. 1 (Palaeosyops.)
 Earle, C. 1892 C, p. 316. (Palaeosyops.)
 Matthew, W. D. 1899 A, p. 47. (Telmatotherium.)
 Trouessart, E. L. 1898 A, p. 739.
 Eocene (Bridger); Wyoming.

DOLICHORHINUS Hatcher. Type *Telmatotherium cornutum* Osb.

- Hatcher, J. B. 1895 A, p. 1090.
 Trouessart, E. L. 1898 A, p. 740.

Dolichorhinus cornutus (Osb.).

- Osborn, H. F. 1896 A, p. 90, figs. 10, 11. (Telmatotherium.)

- Hatcher, J. B. 1895 A, p. 1090.
 Matthew, W. D. 1897 A, p. 53. (Telmatotherium.)
 1899 A, p. 50. (Telmatotherium.)
 Roger, O. 1896 A, p. 193. (Telmatotherium.)
 Trouessart, E. L. 1898 A, p. 740.
 Eocene (Uinta); Utah.

MANTEOCERAS Hatcher. Type *Palaeosyops manteoceras* Osb.

- Hatcher, J. B. 1895 A, p. 1090.

Manteoceras manteoceras (Osb.).

- Osborn, H. F. in Matthew, W. D. 1899 A, p. 47. (Palaeosyops.)
 Hatcher, J. B. 1895 A, p. 1089, pl. xxxix, fig. 2 (Telmatotherium validens, not of Cope); p. 1090 (made type of *Manteoceras*.)

- Matthew, W. D. 1899 A, pp. 47, 50. (Palaeosyops.)
 Osborn, H. F. 1896 A, pp. 83, 87, figs. 7-9. (Telmatotherium validens, not of Cope.)
 Eocene (Bridger); Wyoming. (Uinta); Utah.

DIPLACODON Marsh. Type *D. elatus* Marsh.

- Marsh, O. C. 1875 B, p. 246.
 Cope, E. D. 1881 G, p. 397.
 1884 O, p. 713.
 1887 N, p. 1063.
 1890 C, p. 470.
 Earle, C. 1892 C.
 Hatcher, J. B. 1895 A. (Diplacodon, Protitanotherium.)
 Marsh, O. C. 1884 F, p. 172.
 1889 A, p. 165.
 Matthew, W. D. 1897 A, p. 58.
 Nicholson and Lydekker 1889 A, p. 1374.
 Osborn, H. F. 1890 D, pp. 512, 553.
 1897 D.

- Schlosser, M. 1886 B, p. 19.
 Scott, W. B. 1891 B, p. 371 *et seq.*
 1892 A, p. 432.
 Scott and Osborn 1887 A, p. 263.
 Steinmann and Döderlein 1890 A, p. 777.
 Zittel, K. A. 1893 B, p. 303.

Diplacodon elatus Marsh.

- Marsh, O. C. 1875 B, p. 246.
 King, C. 1878 A, p. 407.
 Marsh, O. C. 1889 H.
 Matthew, W. D. 1899 A, p. 50.
 Osborn, H. F. 1890 D, p. 514, pls. viii, ix.
 Roger, O. 1896 A, p. 193.

Scott and Osborn 1887 A, p. 262.

Trouessart, E. L. 1898 A, p. 740.

Eocene (Uinta); Utah.

Diplacodon emarginatus Hatcher.

Hatcher, J. B. 1895 A, p. 1085, pl. xxxviii, figs. 1-4.

Matthew, W. D. 1899 A, p. 50.

Trouessart, E. L. 1898 A, p. 740.

Eocene (Uinta); Utah.

Hatcher, as cited, has proposed for this species, under certain contingencies, the new generic name *Protitanotherium*.

Dæodon Cope. Type *D. shoshonensis* Cope.

Cope, E. D. 1879 D, p. 77.

1881 G, p. 397.

1884 O, p. 718.

1887 N, p. 1063.

Roger, O. 1896 A, p. 194. (Syn. of *Titanotherium*.)

Trouessart, E. L. 1898 A, p. 740. (Syn. of *Titanotherium*.)

Zittel, K. A. 1893 B, p. 304. (Dæodon; syn. of *Titanotherium*.)

Dæodon shoshonensis Cope.

Cope, E. D. 1879 D, p. 77.

1879 B, p. 58.

Matthew, W. D. 1899 A, p. 63.

Roger, O. 1896 A, p. 194. (*Titanotherium*.)

Trouessart, E. L. 1898 A, p. 740. (*Titanotherium*.)

Miocene (John Day); Oregon.

BRONTOTHERIINÆ.¹

Brandt, J. F. 1878 A, pp. 10, 19. (*Brontotheriinae*.)

Earle, C. 1892 C, p. 274. (*Titanotheriinae*.)

Osborn, H. F. 1898 D, p. 14. (*Titanotheriinae*.)

1900 F, p. 94. ("Titanotheres.")

Osborn and Wortman 1892 A, p. 93. (*Titanotheriinae*.)

Roger, O. 1896 A, p. 194. (*Titanotheriinae*.)

Zittel, K. A. 1893 B, p. 304. (*Titanotheriinae*.)

MEGACEROPS Leidy. Type *M. coloradensis* Leidy.

Leidy, J. 1870 D, p. 2.

Cope, E. D. 1873 E, pp. 564, 585. (*Megaceratops*.)

1873 F, p. 66. (*Megaceratops*.)

1873 K, p. 102. (*Megaceratops*.)

1873 CC, p. 14. (*Megaceratops*.)

1887 N, p. 1063. (Syn. of *Menodus*.)

1889 I, p. 153. (*Haplacodon*, type *Menodus angustigenis* Cope.)

1891 A, p. 9. (*Menodus*, in part.)

Earle, C. 1892 C, p. 296. (*Haplacodon*.)

Leidy, J. 1871 C, p. 352. (*Megacerops*.)

1873 B, pp. 239, 335.

1874 B. (Syn. of *Titanotherium*.)

Marsh, O. C. 1873 F, p. 295.

1874 A.

1875 B, p. 245.

1876 C, p. 338.

1887 B, p. 331. (*Allops*, type *A. acrotinus*.)

1889 A, p. 165. (*Allops*, *Megacerops*.)

1890 D, p. 523. (*Diploclonus*, type *D. amplius*.)

Nicholson and Lydekker 1889 A, p. 1374.

Osborn, H. F. 1890 D, pp. 513, 542. (Syn. of *Titanotherium*.)

1896 B. (*Titanotherium*, in part.)

Scott and Osborn 1887 A, pp. 255, 262. (*Menodus*, in part.)

1887 B, p. 157. (Syn. of *Menodus*.)

Trouessart, E. L. 1898 A, p. 740. (Syn. of *Titanotherium*.)

Megacerops? amplius (Marsh).

Marsh, O. C. 1890 D, p. 523. (*Diploclonus*.)

Osborn, H. F. 1896 B, pp. 192, 193. (*Titanotherium*.)

Roger, O. 1896 A, p. 195. (*Titanotherium*.)

Trouessart, E. L. 1898 A, p. 742. (Syn. of *Titanotherium montanum*.)

Oligocene (White River); South Dakota.

Megacerops angustigenis (Cope).

Cope, E. D. 1886 U, p. 81. (*Menodus*.)

Aml, H. M. 1891 A. (*Menodus*.)

Cope, E. D. 1887 N, p. 1067. (*Menodus*.)

1889 I, p. 153. (Type of *Haplacodon*.)

1889 O, p. 628. (*Menodus syceras*.)

1891 A, p. 13, pl. v, figs. 1, 2; pl. vi, fig. 2; pl. vii, fig. 1; pl. xi, fig. 1?; pl. xii, fig. 4?; pl. xiii, figs. 1?, 4?, 6?, 8? (*Menodus angustigenis*); p. 18, pl. vii, fig. 2?; pl. viii, fig. 4? (*M. syceras*).

Matthew, W. D. 1899 A, p. 58. (*Titanotherium*.)

Osborn, H. F. 1896 B, p. 184 (*Titanotherium angustigenis*); pp. 178, 193 (*T. syceras*, a syn.? of *T. acer*).

Roger, O. 1896 A, p. 194 (*Titanotherium syceras*); p. 195 (*T. angustigenis*).

Trouessart, E. L. 1898 A, p. 741 (*Titanotherium angustigenis*); p. 743 (*T. syceras*, a syn. of *T. acer*).

Oligocene (White River); Swift Current Creek, Canada.

Megacerops coloradensis Leidy.

Leidy, J. 1870 D.

Cope, E. D. 1873 E, p. 585. (*Megaceratops coloradensis*.)

¹In the arrangement of the genera and species of the Brontotheriinae the writer has had the benefit of the conclusions arrived at by Prof. H. F. Osborn, at the date of going to press, in his studies in the preparation of his forthcoming monograph of the Titanotheres.

- Cope, E. D. 1873 F, p. 66. (*Megaceratops coloradoensis*.)
 1887 N, p. 1063. (*Megaceratops coloradoensis*.)
 1891 A, p. 9 (*Menodus coloradoensis*); p. 10, pl. vi, fig. 1; pl. viii, figs. 1-3; pl. ix, figs. 2, 3; pl. x, fig. 2; pl. xii, fig. 1; pl. xiii, figs. 5, 7 (*Menodus? americanus*); p. 10, pl. ix, fig. 1; pl. x, fig. 3; pl. xii, figs. 2, 3c; pl. xiii, fig. 3 (*Menodus? proutii*).
 Leidy, J. 1871 C, p. 352.
 1873 B, pp. 239, 335, pl. i, figs. 2, 3; pl. ii, fig. 2.
 Marsh, O. C. 1873 F, p. 296.
 1874 A, p. 81.
 1897 C, p. 527.
 Matthew, W. D. 1899 A, p. 57. (*Titanotherium*.)
 Osborn, H. F. 1890 D, p. 15, p. 513. (*Titanotherium*.)
 1896 B, p. 171, text figure; p. 175, pl. iii. (*Titanotherium*.)
 Roger, O. 1896 A, p. 194. (*Titanotherium*.)
 Trouessart, E. L. 1898 A, p. 741. (*Titanotherium*.)
 Oligocene (White River); South Dakota.

BRONTOTHERIUM Marsh.

- Marsh, O. C. 1873 H, p. 486.
 Cope, E. D. 1873 S, p. 2. (*Miobasilus*, type *M. ophryas*.)
 1873 DD. (*Miobasilus*.)
 1874 A, p. 108. (*Miobasilus*.)
 1887 L, p. 926. ("Brontops.")
 1887 N, p. 1063. (Syn. of *Menodus*.)
 1891 A, p. 9. (*Menodus*, in part.)
 Flower, W. H. 1876 B, xiii, p. 327.
 Flower and Lydekker 1891 A, p. 413. (Syn. of *Titanotherium*.)
 Leidy, J. 1874 B. (Syn. of *Titanotherium*.)
 Marsh, O. C. 1874 A, p. 81.
 1874 D, p. 66.
 1875 B, p. 245.
 1876 C, p. 334. (*Brontotherium*.)
 1887 B, p. 326 (*Brontops*, type *B. robustus*); p. 330 (*Titanops*, type *T. curtus*).
 1889 A, p. 163 (*Brontops*); p. 165 (*Titanops*).
 1889 H. (*Brontops*.)
 Nature 1874 A.
 Osborn, H. F. 1896 B, p. 175. (*Titanotherium*, in part.)
 Schlosser, M. 1886 A, p. 253.
 Scott and Osborn 1887 A, p. 262. (*Menodus*, in part.)
 1887 B, p. 157. (Syn. of *Menodus*.)
 Trouessart, E. L. 1898 A, p. 740. (Syn. of *Titanotherium*.)
 Woodward, A. S. 1896 B, p. 330 (*Titanotherium*, in part); p. 332 (*Brontotherium*).

Brontotherium bucco (Cope.)

- Cope, E. D. 1873 CC, p. 11. (*Symborodon*.)
 1873 DD. (*Symborodon*.)
 1874 B, p. 485, in part. (*Symborodon*.)
 1874 G, p. 89. (*Symborodon*.)

Megacerops? crassicornis (Marsh.)

- Marsh, O. C. 1891 E, p. 268. (Allops.)
 Oligocene (White River); South Dakota.

Megacerops dispar (Marsh.)

- Marsh, O. C. 1887 B, p. 328, figs. 7, 8; not figs. 5, 6. (*Brontops*.)
 1891 E, p. 269. (*Brontops validus*.)
 Osborn, H. F. 1896 B, p. 188. (*Titanotherium*.)
 Roger, O. 1896 A, p. 195. (*Titanotherium*.)
 Scott and Osborn 1887 B, p. 158, text figs. 3^a, 5^a, 6^a. (*Menodus coloradensis*.)
 Trouessart, E. L. 1898 A, p. 742. (*Titanotherium*.)
 Zittel K. A. 1893 B, p. 307, figs. 249, 250. (*Titanotherium*.)
 Oligocene (White River); South Dakota.

Megacerops? serotinus (Marsh.)

- Marsh, O. C. 1887 B, p. 331. (Allops.)
 Cope, E. D. 1887 L, p. 926. (*Menodus*.)
 Osborn, H. F. 1896 B, p. 192. (*Titanotherium*.)
 Roger, O. 1896 A, p. 195. (*Titanotherium*.)
 Oligocene (White River); South Dakota.

Type *B. gigas* Marsh.

- Cope, E. D. 1887 N, p. 1063. (*Symborodon*.)
 Roger, O. 1896 A, p. 195. (*Titanotherium*.)
 Trouessart, E. L. 1898 A, p. 742. (*Titanotherium*.)
 Oligocene (White River); Colorado.

Brontotherium curtum (Marsh.)

- Marsh, O. C. 1887 B, p. 330, fig. 11. (*Titanops*.)
 Cope, E. D. 1887 L, p. 926. (Syn. of *Menodus platyceras*.)
 1891 D, p. 48. (*Menodus peltoceras*.)
 Marsh, O. C. 1897 C, p. 522, fig. 94. (*Titanops*.)
 Matthew, W. D. 1899 A, p. 58. (*Titanotherium curtum*, *T. peltoceras*.)
 Osborn, H. F. 1896 B, p. 189, pl. iv. (*Titanotherium*.)
 Roger, O. 1896 A, p. 194 (*Titanotherium curtum*, a syn. of *T. platyceras*); p. 195 (*T. peltoceras*).
 Trouessart, E. L. 1898 A, p. 741 (*Titanotherium peltoceras*); p. 743 (*T. curtum*, a syn. of *T. platyceras*).
 Oligocene (White River); Colorado, South Dakota.

Brontotherium dolichoceras (Scott and Osb.).

- Scott and Osborn 1887 B, p. 160, text figs. 3^a, 5^a, 6^a. (*Menodus*.)
 Cope, E. D. 1887 N, p. 1063. (*Menodus*.)
 Matthew, W. D. 1899 A, p. 58. (*Titanotherium*.)
 Osborn, H. F. 1896 B, p. 185, pl. iv; text fig. p. 169. (*Titanotherium*.)
 Osborn and Wortman 1895 A, p. 349. (*Titanotherium*.)
 Roger, O. 1896 A, p. 194. (*Titanotherium*.)
 Trouessart, E. L. 1898 A, p. 742. (*Titanotherium*.)
 Oligocene (White River); South Dakota.

Brontotherium gigas Marsh.*Marsh, O. C.* 1873 H, p. 486.

King, C. 1878 A, p. 412.

Marsh, O. C. 1876 C, pl. xii.1887 B, p. 330, fig. 12. (*Titanops elatus*.)

1897 C, p. 527.

Matthew, W. D. 1899 A, p. 58. (*Titanotherium elatum*.)*Osborn, H. F.* 1896 B, p. 175 (*Titanotherium gigas*); p. 171, text figure (T. elatum); p. 189, pl. iv (T. elatum).1896 C, pp. 709, 714, illust. 5. (*Titanotherium elatum*.)1896 Q, p. 17. (*Titanotherium elatum*.)*Osborn and Wortman* 1896 A, p. 349. (*Titanotherium elatum*.)*Roger, O.* 1896 A, p. 194. (*Titanotherium gigas*.)*Trouessart, E. L.* 1896 A, p. 742. (*Titanotherium gigas*; T. elatum, a subsp. of T. montanum.)

Oligocene (White River); Colorado, South Dakota.

Brontotherium hypoceras (Cope).*Cope, E. D.* 1874 B, p. 491. (*Symborodon*.)*Osborn, H. F.* 1896 B, p. 183. (*Titanotherium*.)*Trouessart, E. L.* 1896 A, p. 742. (Syn.? of T. ingens.)

Oligocene (White River); Colorado.

Brontotherium medium (Marsh).*Marsh, O. C.* 1891 E, p. 269. (*Titanops*.)

Oligocene (White River); South Dakota.

Brontotherium? ophryas (Cope).*Cope, E. D.* 1873 S, p. 3. (*Miobasilus*.)1873 CC, p. 14. (*Miobasilus*.)1874 A, p. 108. (*Miobasilus*.)1874 B, p. 490. (*Symborodon*.)*Osborn, H. F.* 1896 B, p. 177. (*Titanotherium*.)*Trouessart, E. L.* 1896 A, p. 743. (*Titanotherium*.)

Oligocene (White River); Colorado.

Brontotherium platyceras (Scott and Osb.).*Scott and Osborn* 1887 B, p. 160, text fig. 4. (*Menodus*.)*Cope, E. D.* 1887 L, p. 926. (*Menodus*.)1887 N, p. 1063. (*Menodus*.)1891 A, p. 9. (*Menodus*.)*Matthew, W. D.* 1899 A, p. 58. (*Titanotherium*.)*Osborn, H. F.* 1896 B, pp. 167, 185, pl. iv, text figs. 7, 7a, and p. 167. (*Titanotherium*.)*Roger, O.* 1896 A, p. 194. (*Titanotherium*.)*Trouessart, E. L.* 1896 A, p. 743. (*Titanotherium*.)*Zittel, K. A.* 1893 B, p. 309, fig. 251. (*Titanotherium*.)

Oligocene (White River); South Dakota.

Brontotherium ramosum (Osborn).*Osborn, H. F.* 1896 B, pp. 167, 194, pl. iv, figures; text fig. 13. (*Titanotherium*.)*Matthew, W. D.* 1899 A, p. 58. (*Titanotherium*.)*Trouessart, E. L.* 1896 A, p. 743. (*Titanotherium*.)

Oligocene (White River); South Dakota.

Brontotherium robustum (Marsh).*Marsh, O. C.* 1887 B, p. 326. (*Brontops*.)*Hatcher, J. B.* 1893 B, p. 212. (*Titanotherium*.)*Hutchinson, H. N.* 1893 A, p. 160, pl. xv. (*Titanotherium*.)*Marsh, O. C.* 1899 A, p. 163, pl. vi. (*Brontops*.)1899 H, p. 706. (*Brontops*.)1897 C, pl. xxix. (*Brontops*.)*Matthew, W. D.* 1899 A, p. 58. (*Titanotherium*.)*Osborn, H. F.* 1896 A, p. 162. (*Titanotherium*.)1896 B, p. 187, text fig. 8. (*Titanotherium*.)*Osborn and Wortman* 1896 A, p. 346, pls. viii, ix; text figs. 1-3. (*Titanotherium*.)*Trouessart, E. L.* 1896 A, p. 742. (*Titanotherium*.)*Woodward, A. S.* 1896 B, p. 331, fig. 190. (*Titanotherium*.)*Zittel, K. A.* 1893 B, p. 306, fig. 247. (*Titanotherium*.)

Oligocene (White River); Nebraska, Colorado.

Brontotherium? selwynianum (Cope).*Cope, E. D.* 1889 D, p. 628. (*Menodus*.)*Ami, H. M.* 1891 A. (*Menodus*.)*Cope, E. D.* 1891 A, p. 17, pl. v, figs. 3-3b. (*Menodus*.)*Matthew, W. D.* 1899 A, p. 58. (*Titanotherium*.)*Osborn, H. F.* 1896 B, p. 193. (*Titanotherium selwynianus*.)*Roger, O.* 1896 A, p. 194. (*Titanotherium*.)*Trouessart, E. L.* 1896 A, p. 741. (*Titanotherium*.)

Oligocene (White River); Swift Current Creek, Canada.

Brontotherium tichoceras (Scott and Osb.).*Scott and Osborn* 1887 A, p. 159, text figs. 3^a, 5^a, 6^a. (*Menodus*.)*Cope, E. D.* 1887 N, p. 1063. (*Menodus*.)1891 A, p. 9. (*Menodus tichoceras*, M. altirostris.)*Matthew, W. D.* 1899 A, p. 58. (*Titanotherium*.)*Osborn, H. F.* 1896 B, p. 184, pl. iii, figures; and p. 169. (*Titanotherium*.)*Roger, O.* 1896 A, p. 195. (*Titanotherium*.)*Trouessart, E. L.* 1896 A, p. 742. (*Titanotherium*.)

Oligocene (White River); South Dakota.

TITANOTHERIUM Leidy. Type *Palaotherium? proutii* Owen, Norw., Evans.*Leidy, J.* 1862 J, p. 562.*Cary, A.* 1892 A, p. 309, pl. xviii, fig. 2.*Cope, E. D.* 1873 E, pp. 564, 585.

1874 G, p. 90.

1874 K, p. 224.

1881 G, p. 397. (*Menodus*.)*Cope, E. D.* 1884 O, p. 713. (*Menodus*.)1887 L, p. 926. (*Menodus*.)1887 N, p. 1063. (*Menodus*.)1891 A, p. 8. (*Menodus*.)*Flower, W. H.* 1876 B, xlii, p. 327.

1876 C, p. 115.

- Flower and Lydekker 1891 A, p. 413. (Titanotherium, in part.)
 Gaudry, A. 1878 B, p. 163.
 Green, F. V. 1863 A.
 Hatcher, J. B. 1893 B.
 Hay, O. P. 1899 A, p. 594. (Menodus.)
 Leidy, J. 1850 C, p. 122. (Palæotherium.)
 1851 A. (Palæotherium.)
 1852 A. (Rhinoceros.)
 1853 D, p. 392. (Titanotherium; Eotherium, type *E. americanum*.)
 1854 A, pp. 72, 114.
 1856 H, p. 92.
 1869 A, p. 207.
 1871 C, p. 352.
 1874 B.
 1874 C.
 Lydekker, R. 1896 B, pp. 170, 377.
 Marsh, O. C. 1873 H, p. 486. (Titanotherium; Menodus preoccupied.)
 1874 A.
 1875 B, p. 245.
 1876 C, p. 338. (Menodus.)
 1884 F, p. 225. (Menodus.)
 1887 B, p. 328. (Menops, type *M. varians*.)
 1889 A, p. 165. (Menops.)
 Nature 1874 A.
 Nicholson and Lydekker 1889 A, p. 1374. (Titanotherium, in part.)
 Osborn, H. F. 1890 D, pp. 513, 542. (Titanotherium, in part.)
 1896 A.
 1896 B. (Titanotherium, in part.)
 ?Pomel, A. 1849, Biblioth. Univ. Genève, x, p. 76. (Menodus.)
 Prout, H. A. 1860 A. (Leidyotherium.)
 Rüttimeyer, L. 1862 A, p. 571.
 Schlosser, M. 1886 A, p. 253. (Titanotherium, Menodus.)
 1886 B, p. 19.
 Scott, W. B. 1891 A, p. 371. (Titanotherium, in part.)
 1892 A, p. 432. (Titanotherium, in part.)
 Scott and Osborn 1887 A, p. 262. (Menodus.)
 1887 B, p. 158. (Menodus.)
 Steinmann and Döderlein 1890 A, p. 778. (Menodus.)

Titanotherium heloceras (Cope).

- Cope, E. D. 1878 S, p. 4. (Megaceratops heloceras, *err. typ.*)
 1873 CC, p. 14. (Symborodon.)
 1873 DD. (Symborodon heloceras.)
 1874 A, p. 109. (Symborodon.)
 1874 B, pp. 484, 487. (Symborodon.)
 1887 N, p. 1063. (Symborodon.)
 Hatcher, J. B. 1893 B, p. 219, fig. 3.
 Matthew, W. D. 1899 A, p. 58.
 Osborn, H. F. 1896 B, p. 179, pl. iii; text fig. p. 171.
 Trouessart, E. L. 1898 A, p. 741.
 Oligocene (White River); Colorado.

Titanotherium ingens (Marsh).

- Marsh, O. C. 1874 A, p. 85, pls. 1, iv. (Brontotherium.)

- Cope, E. D. 1874 Q. (Syn. of Symborodon trigonoceras.)
 1887 N, p. 1063. (Menodus.)
 1891 A, p. 91. (Syn. of Menodus americanus.)
 Gaudry, A. 1878 B, p. 75, fig. 87. (Brontotherium.)
 Hatcher, J. B. 1893 B, p. 219, fig. 2.
 King, C. 1878 A, p. 411. (Brontotherium.)
 Marsh, O. C. 1876 C, pls. x-xiii, and text figs. 1, 2. (Brontotherium.)
 1884 F, figs. 64, 160, 161. (Brontotherium.)
 1885 B, figs. 101, 130, 131. (Brontotherium.)
 1897 C, p. 522, fig. 93. (Brontotherium.)
 Matthew, W. D. 1899 A, p. 58.
 Nature 1874 A, figs. 1, 2. (Brontotherium.)
 Osborn, H. F. 1896 B, p. 182, text fig. p. 171.
 Scott and Osborn 1887 B, p. 158. (Syn. of Menodus coloradensis.)
 Trouessart, E. L. 1898 A, p. 742.
 Zittel, K. A. 1893 B, p. 304, fig. 245.
 Oligocene (White River); Colorado, South Dakota.

Titanotherium proutii (Owen, Norw., and Evans).

- Owen, Norwood, and Evans 1850 A, p. 66. (Palæotherium?)
 Ami, H. M. 1891 A. (Menodus americanus, M. proutii.)
 Cope, E. D. 1874 K.
 1887 N, p. 1063, pl. xxxii. (Menodus giganteus.)
 Hayden, F. V. 1858 B, p. 157.
 Leidy, J. 1850 C, p. 122. (Palæotherium.)
 1851 A. (Palæotherium.)
 1852 A, p. 2. (Rhinoceros americanus.)
 1852 J, p. 551, pl. ix, figs. 3, 3a; pl. xii b, figs. 3, 4, 6 (Palæotherium proutii); ex-plan. pl. xii b (P. maximum).
 1852 L, p. 64. (Palæotherium.)
 1853 D, p. 392. (T. proutii; Eotherium americanum.)
 1854 A, pp. 72, 114, pl. xvi; pl. xvii, figs. 1-10 (T. proutii); pp. 78, 114, pl. xvii, figs. 11-13 (Palæotherium giganteum).
 1854 E, p. 157.
 1856 H, p. 92.
 1869 A, pp. 206, 389, pl. xxiv. (T. proutii.)
 1871 C, p. 354.
 1874 B.
 1874 C.
 Marsh, O. C. 1870 D.
 1873 H, p. 486.
 1874 A, p. 81.
 1874 H, p. 486. (T. proutii.)
 1876 C, p. 138.
 Osborn, H. F. 1896 B, p. 158. (T. proutii, T. maximum, T. americanum.)
 Osborn and Wortman 1896 A, p. 34, fig. 2.
 Pictet, F. J. 1853 A, p. 311. (Palæotherium.)
 Prout, H. A. 1846 A, fig. 1. ("Palæotherium.")
 1847 A, figs. 1, 2. (Palæotherium?)
 Roger, O. 1896 A, p. 194. (T. proutii, T. americanum.)
 Scott and Osborn 1887 B, p. 163.
 Trouessart, E. L. 1898 A, p. 741. (T. proutii, T. americanum.)

Zittel, K. A. 1893 B, p. 305, fig. 246.

Oligocene (White River); South Dakota?

References of specimens to this species by writers since the original description may or may not be correct. More than one species may be included.

Titanotherium trigonoceras (Cope).

Cope, E. D. 1873 CC, p. 13. (Symborodon.)

1874 B, p. 488. (Symborodon.)

1874 G, pp. 89, 90. (Symborodon trigonoceras.)

1874 P, p. 28. (Symborodon.)

1874 Q, p. 2. (Symborodon.)

1887 L, p. 926. (Menops varians=Menodus trigonoceras.)

Cope, E. D. 1887 N, p. 1065, figs. 29, 30, 317. (Symborodon.)

1889 C, p. 259, fig. 81. (Symborodon.)

1891 A, p. 9. (Symborodon.)

Marsh, O. C. 1887 B, p. 328, fig. 9; not fig. 10. (Menops varians.)

Matthew, W. D. 1899 A, p. 58.

Osborn, H. F. 1896 B, p. 180, pl. iii, text figs. 501 and 6355 on p. 167; not text figs. 5, 6 (T. trigonoceras); p. 189, pl. iii (T. varians).

Scott and Osborn 1887 B, p. 158. (Syn. of Menodus coloradensis.)

Trouessart, E. L. 1898 A, p. 741. (T. trigonoceras.) Oligocene (White River); Colorado, South Dakota.

SYMBORODON Cope. Type *S. torvus* Cope.

Cope, E. D. 1873 S, p. 2.

1873 DD.

1874 A, p. 108.

1874 B, p. 480.

1874 G, p. 90.

1874 K, p. 224.

1881 G, p. 397.

1884 O, p. 713.

1887 L, p. 926.

1887 N, p. 1063.

1887 S.

1899 C.

1891 A, p. 9.

Flower, W. H. 1876 B, xiii, p. 327.

Flower and Lydekker 1891 A, p. 413. (Syn. of Titanotherium.)

Ledy, J. 1874 B. (Syn. of Titanotherium.)

Marsh, O. C. 1874 A, p. 81. (Syn. of Brontotherium.)

1875 B, p. 246. (Anisacodon, type *A. montanus*.)

1876 C, p. 338 (Megacerops, part; Brontotherium, part); p. 339 (Diconodon, to replace Anisacodon Marsh, 1875; preoccupied by Marsh, 1872).

Nicholson and Lydekker 1898 A, p. 1374. (Syn. of Titanotherium.)

Osborn, H. F. 1890 D, p. 513. (Titanotherium, in part.)

1896 B. (Titanotherium, in part.)

Scott and Osborn 1887 B, p. 157. (Syn. of Menodus.)

Steinmann and Döderlein 1890 A, p. 778.

Trouessart, E. L. 1898 A, p. 740. (Syn. of Titanotherium.)

Symborodon acer Cope.

Cope, E. D. 1873 S, p. 4. (Megaceratops.)

1873 CC, p. 12 (S. altirostris); p. 13 (S. acer).

1873 DD. (S. acer, S. altirostris.)

1874 A, p. 109.

1874 B, p. 486, pls. v, vi; pl. viii, fig. 1 (S. altirostris); p. 488, pl. vii; pl. viii, fig. 3 (S. acer).

1874 G, p. 89. (S. acer, S. altirostris.)

1887 N, p. 1064, fig. 28; pl. xxxiv, fig. 3 (S. acer); pl. xxxiii, fig. a; pl. xxxiv, fig. 1 (S. altirostris).

Cope, E. D. 1891 A, p. 9. (S. acer, S. altirostris.)

Hatcher, J. B. 1893 B, p. 219, fig. 1. (Titanotherium.)

Matthew, W. D. 1899 A, p. 58. (Titanotherium.)

Osborn, H. F. 1896 B, pp. 178, 179, pl. iv, and text figs. 3 A, 4. (Titanotherium.)

Roger, O. 1896 A, p. 195. (Titanotherium acer, T. altirostris.)

Trouessart, E. L. 1898 A, p. 743.

Oligocene (White River); Colorado, Nebraska, South Dakota, Canada.

Symborodon montanus (Marsh).

Marsh, O. C. 1875 B, p. 246. (Anisacodon.)

King, C. 1878 A, p. 412. (Diconodon.)

Marsh, O. C. 1876 C, p. 339. (Diconodon.)

Matthew, W. D. 1899 A, p. 58. (Titanotherium.)

Osborn, H. F. 1896 B, p. 183. (Titanotherium.)

Roger, O. 1896 A, p. 195. (Titanotherium.)

Trouessart, E. L. 1898 A, p. 742. (Titanotherium.)

Oligocene (White River); South Dakota.

Symborodon torvus Cope.

Cope, E. D. 1873 S, p. 2. (S. torvus, *errore typog.*)

1873 CC, p. 14.

1874 A, p. 108.

1874 B, p. 485, pl. ii, fig. 1; pls. iii, iv; pl. vii, fig. 2. (S. bucco.)

1874 G.

1887 N, p. 1063, pl. xxxiii, fig. b; pl. xxxiv, fig. 2. (S. bucco.)

1891 A, pp. 9, 11. (S. bucco, S. proutii.)

Matthew, W. D. 1899 A, p. 58. (Titanotherium.)

Osborn, H. F. 1896 B, p. 176, pl. iii; not text figs. 2, 3 (Titanotherium torvus); pp. 167, figure; p. 179, pl. iii (T. bucco).

1898 Q, p. 9. (Menodus.)

Roger, O. 1896 A, p. 195. (Titanotherium.)

Trouessart, E. L. 1898 A, p. 742. (Syn. of Titanotherium bucco.)

Woodward, A. S. 1896 B, p. 331, fig. 190. (Menodus.)

Oligocene (White River); Colorado, South Dakota, Nebraska.

TELEODUS Marsh. Type *T. avus* Marsh.

- Marsh, O. C. 1890 D, p. 524.
 Hatcher, J. B. 1893 B, p. 217.
 Osborn, H. F. 1896 B, p. 175 (Syn.? of *Diplacodon*);
 p. 194 (Syn.? of *Titanotherium*).
 Zittel, K. A. 1893 B, pp. 304, 308. (Syn. of *Titanotherium*.)

Teleodus avus Marsh.

Marsh, O. C. 1890 D, p. 524.

- Matthew, W. D. 1899 A, p. 57. (*Titanotherium*.)
 Osborn, H. F. 1896 B, p. 194. (*Titanotherium avum*.)
 Roger, O. 1896 A, p. 194. (*Titanotherium*.)
 Trouessart, E. L. 1898 A, p. 740. (*Diplacodon*.)
 Oligocene (White River); South Dakota.

Superfamily RHINOCEROTOIDEA.

Gill, T. 1872 B, pp. 12, 85, 87.

Osborn, H. F. 1898 I, pp. 79, 80.

HYRACODONTIDÆ.

- Branco, W. 1897 A, p. 20.
 Cope, E. D. 1879 C, p. 228.
 1879 V, p. 771 a.
 1881 G, pp. 378, 393.
 1881 O.
 1884 O, pp. 615, 691.
 1887 K.
 1887 N.
 Osborn, H. F. 1893 D, p. 37.
 1898 I, pp. 79, 80, 94.

- Osborn, H. F. 1900 C, p. 570.
 Osborn and Wortman 1895 A, p. 367.
 Roger, O. 1896 A, p. 185.
 Scott and Osborn 1883 A, p. 17. ("Hyracodon series.")
 Steinmann and Döderlein 1890 A, p. 772. (*Hyracodontinae*.)
 Trouessart, E. L. 1898 A, p. 744. (*Hyracodontinae*.)
 Zittel, K. A. 1893 B, p. 284. (Subfamily.)

HYRACHYINÆ.

Osborn, H. F. 1893 D, p. 40.
 1898 I, p. 85.

Osborn and Wortman 1892 A, p. 93.

HYRACHYUS Leidy. Type *H. agrarius* Leidy.

- Leidy, J. 1871 K, p. 229.
 Brandt, J. F. 1878 A, p. 24.
 Cope, E. D. 1873 E, p. 594.
 1873 H.
 1881 G, p. 381.
 1883 II, p. 969.
 1884 O, pp. 618, 657.
 1887 N, p. 994.
 1889 C.
 Earle, C. 1892 C, p. 329.
 Filhol, H. 1885 A.
 1888 A, p. 180.
 Flower, W. H. 1876 B, xiii, p. 827.
 Flower and Lydekker 1891 A, p. 378.
 Gaudry, A. 1877 A.
 1878 B, p. 65.
 1897 A, p. 320.
 Leidy, J. 1871 C, p. 357.
 1872 B, p. 360.
 1872 C, p. 19.
 1873 B, pp. 59, 327.
 Marsh, O. C. 1875 B, p. 244.
 1877 E.
 Nicholson and Lydekker 1889 A, p. 1356.
 Osborn, H. F. 1890 D, p. 506.
 1898 I, p. 87, fig. 5.
 Osborn, Scott, and Speir 1878 A, p. 49.
 Osborn and Wortman 1892 A, p. 129.
 Pavlow, M. 1888 A, p. 177.
 1892 A.
 Rüttimeyer, L. 1891 A, p. 28.

- Schlosser, M. 1886 B, p. 23.
 Scott, W. B. 1883 A, p. 49.
 1896 B.
 Scott and Osborn 1883 A, p. 11.
 1887 A, p. 261.
 Steinmann and Döderlein 1890 A, p. 771.
 Trouessart, E. L. 1898 A, p. 744.
 Wortman and Earle 1893 A.
 Zittel, K. A. 1893 B, p. 284.

Hyrachyus affinis (Marsh).

- Marsh, O. C. 1871 D, p. 37. (*Lophiodon*.)
 Leidy, J. 1872 B, p. 362. *Lophiodon*.
 1872 C, p. 20. (*Lophiodon*.)
 Eocene (Bridger); Wyoming.
 This species is referred to the genus *Hyrachyus* with doubt.

Hyrachyus agrarius Leidy.

- Leidy, J. 1871 K, p. 229.
 Cope, E. D. 1873 E, p. 605.
 1873 U, p. 6. (*H. implicatus*, specimen 1.)
 1884 O, pp. 660, 675.
 1887 N, p. 997, pl. xxxi, text fig. 10. (*H. agrestis*.)
 1889 C, p. 257, fig. 80. (*H. agrestis*.)
 King, C. 1878 A, p. 404. (*H. agrarius*, *H. bairdianus*.)
 Leidy, J. 1871 B, p. 373.
 1871 C, p. 357. (*H. agrarius*, *H. agrestis*.)
 1871 K, p. 229.

- Leidy, J. 1872 B, p. 361.
 1872 C, p. 19.
 1873 B, pp. 60, 327, pl. II, figs. 11, 12; pl. IV, figs. 9-18; pl. XX, figs. 25, 26.
 Marsh, O. C. 1871 D, p. 36. (*Lophiodon bairdianus*.)
 1884 F, p. 64, fig. 71. (*H. bairdianus*.)
 Matthew, W. D. 1899 A, p. 46.
 Osborn, H. F. 1890 D, p. 506.
 1892 B, p. 764.
 1898 I, p. 81, fig. 1; p. 88, fig. 6; p. 89, fig. 8; p. 128, fig. 33.
 1898 Q, p. 9.
 Osborn, Scott, and Speir 1878 A, p. 49.
 Osborn and Wortman 1895 A, p. 367, figs. 9-11.
 Pavlov, M. 1892 A.
 Roger, O. 1896 A, p. 185.
 Trouessart, E. L. 1898 A, p. 744.
 Eocene (Bridger); Wyoming, Utah.

Hyrachyus eximius Leidy.

- Leidy, J. 1871 K, p. 229.
 Cope, E. D. 1873 E, p. 595.
 1873 H, p. 213.
 1884 O, pp. 660, 662, pl. xxiii, fig. 1; pl. lili, fig. 8; pls. liv. lv, lva; pl. lviii, figs. 5, 6.
 Leidy, J. 1871 B, p. 373.
 1872 B, p. 361.
 1873 B, pp. 66, 327, pl. IV, figs. 19, 20; pl. xix, fig. 5; pl. xxvi, figs. 9, 10.
 Matthew, W. D. 1899 A, p. 46.
 Osborn, H. F. 1892 I, p. 764.
 Osborn, Scott, and Speir 1878 A, pp. 49, 52.
 Pavlov, M. 1892 A, p. 171.
 Roger, O. 1896 A, p. 185.
 Trouessart, E. L. 1898 A, p. 744.
 Zittel, K. A. 1893 B, p. 294, figs. 224, 225.
 Eocene (Bridger); Wyoming.

Hyrachyus imperialis Osb., Scott, and Speir.

- Osborn, Scott, and Speir 1878 A, p. 50.
 Cope, E. D. 1884 O, p. 660.
 Matthew, W. D. 1899 A, p. 46.

COLONOCERAS Marsh. Type *C. agrestis* Marsh.

- Marsh, O. C. 1873 H, p. 407.
 Brandt, J. F. 1878 A, p. 25.
 Cope, E. D. 1879 C, p. 233.
 1881 G, p. 381.
 1884 O, p. 618.
 1887 N, p. 994.
 Marsh, O. C. 1877 E.
 1884 F, fig. 10.
 1897 D, p. 166.
 Nicholson and Lydekker 1889 A, p. 1356.
 Osborn, H. F. 1890 D, p. 505.
 1893 D.

- Trouessart, E. L. 1898 A, p. 744.
 Eocene (Bridger); Wyoming.

Hyrachyus implicatus Cope.

- Cope, E. D. 1873 U, p. 5, specimen 2.
 1873 E, p. 604.
 1884 O, pp. 660, 675, 676, pl. lviii, figs. 6, 7 (*H. implicatus*); p. 660 (*H. intermedius*).
 Matthew, W. D. 1899 A, p. 46.
 Osborn, Scott, and Speir 1878 A, p. 51 (*H. implicatus*); p. 52 (*H. intermedius*, not of Filhol); p. 52 (*H. crassidens*).
 Roger, O. 1896 A, p. 185.
 Trouessart, E. L. 1898 A, p. 744. (*H. implicatus*, *H. intermedius*.)
 Eocene (Bridger); Wyoming.

Hyrachyus modestus Leidy.

- Leidy, J. 1870 O, p. 109. (*Lophiodon*.)
 Cope, E. D. 1884 O, p. 660.
 Leidy, J. 1871 C, p. 357. (*Lophiodon*.)
 1872 B, p. 361.
 1872 C, p. 20.
 1873 B, pp. 67, 367, pl. II, figs. 11, 13.
 Matthew, W. D. 1899 A, p. 46.
 Roger, O. 1896 A, p. 185.
 Trouessart, E. L. 1898 A, p. 744.
 Eocene (Bridger); Wyoming.

Hyrachyus paradoxus Osb., Scott, and Speir.

- Osborn, Scott, and Speir 1878 A, pp. 53, 135.
 Matthew, W. D. 1899 A, p. 46.
 Eocene (Bridger); Wyoming.

Hyrachyus princeps Marsh.

- Marsh, O. C. 1872 G, p. 125.
 Cope, E. D. 1873 E, p. 595.
 1873 U, p. 6.
 1884 O, pp. 660, 661, pl. lli, fig. 4.
 Matthew, W. D. 1899 A, p. 46.
 Roger, O. 1896 A, p. 185.
 Trouessart, E. L. 1898 A, p. 744.
 Eocene (Bridger); Wyoming.

TRIPOPODINÆ.

- Cope, E. D. 1881 G, pp. 378, 382. (*Tripopodidæ*.)
 1881 O. (*Tripopodidæ*.)
 1884 O, p. 615. (*Tripopodidæ*.)
 1887 N, pp. 992, 993. (*Tripopodidæ*.)
 Nicholson and Lydekker 1889 A, p. 1356. (*Tripopodidæ*.)
 Osborn, H. F. 1898 I, p. 85.
 Osborn and Wortman 1892 A, p. 93.

TRIPLOPUS Cope. Type *T. cubitalis* Cope.

Cope, E. D. 1880 I.

1880 M.

1881 G, p. 382.

1884 O, p. 678.

1890 C, p. 472.

Nicholson and Lydekker 1889 A, pp. 1355, 1356.
(Prothyracon.)

Osborn, H. F. 1890 D, p. 524.

Schlosser, M. 1886 B, p. 23.

Scott, W. B. 1883 A, p. 53.

Scott and Osborn 1883 A, p. 12.

1887 A, p. 260. (Prothyracon, type *P. intermedium* = *T. obliquidens*.)

Zittel, K. A. 1893 B, p. 285.

Triplopus amarorum Cope.

Cope, E. D. 1881 G, p. 389.

1884 O, pp. 660, 687, pl. lv, figs. 6-9; pl. lviii, fig. 2.

Matthew, W. D. 1899 A, p. 46.

Osborn, H. F. 1897 A, p. 57.

Roger, O. 1896 A, p. 185.

Trouessart, E. L. 1898 A, p. 745.

Eocene (Bridger); Wyoming.

Triplopus cubitalis Cope.

Cope, E. D. 1880 I.

1881 G, p. 383.

1884 O, p. 687, pls. lva, figs. 10-12; pl. lvia.

1887 N, p. 999, fig. 13.

Matthew, W. D. 1899 A, p. 46.

Osborn, H. F. 1890 D, p. 523.

Roger, O. 1896 A, p. 185.

Scott, W. B. 1896 B, p. 367.

Trouessart, E. L. 1898 A, p. 745.

Eocene (Bridger); Wyoming.

Triplopus obliquidens (Scott and Osb.).

Scott and Osborn 1887 A, p. 259. (Hyrachyus.)

Matthew, W. D. 1899 A, p. 49.

Osborn, H. F. 1890 D, p. 525, pl. xi, figs. 6-10.

Roger, O. 1896 A, p. 185.

Scott and Osborn 1887 A, p. 260. (Prothyracon *intermedium*.)

Trouessart, E. L. 1898 A, p. 745.

Eocene (Bridger); Wyoming; (Uinta); Utah.

ANCHISODON Cope. Type *A. quadriplicatus* Cope.

Cope, E. D. 1879 L, p. 270.

1879 C, p. 238.

Scott, W. B. 1883 A, p. 50.

Anchisodon quadriplicatus Cope.

Cope, E. D. 1873 S, p. 1. (Hyracodon.)

Brandt, J. F. 1878 A, p. 32. (Aceratherium.)

Cope, E. D. 1873 CC, p. 14. (Hyracodon.)

1874 B, p. 495. (Aceratherium.)

1879 C, p. 234.

1879 L.

Matthew, W. D. 1899 A, p. 57. (Aceratherium.)

Roger, B. 1896 A, p. 185.

Trouessart, E. L. 1898 A, p. 745 (Anchisodon); p. 749 (Aceratherium).

Oligocene (White River); Colorado.

Anchisodon tubifer Cope.

Cope, E. D. 1879 L, p. 270.

1879 C, p. 234.

Matthew, W. D. 1899 A, p. 63. (Aceratherium.)

Roger, O. 1896 A, p. 185.

Trouessart, E. L. 1898 A, p. 745.

Miocene (John Day); Oregon.

HYRACODONTINÆ.

Branco, W. 1897 A, p. 20. (Hyracodontidæ.)

Osborn, H. F. 1898 I, p. 85.

Osborn and Wortman 1892 A, p. 93.

Steinmann and Döderlein 1890 A, p. 772.

Trouessart, E. L. 1898 A, p. 744.

HYRACODON Leidy. Type *H. nebraskensis* Leidy.

Leidy, J. 1856 H, p. 91.

Brandt, J. F. 1878 A, p. 22.

Cope, E. D. 1879 C, p. 234.

1879 V, pp. 771a, 771d.

1884 O, p. 691.

1887 L, p. 925.

Dawkins, W. B. 1870 A.

Flower, W. H. 1876 C, p. 107.

Flower and Lydekker 1891 A, p. 412.

Gaudry, A. 1877 A.

Leidy, J. 1869 A, p. 232.

1871 C, p. 356.

Lydekker, R. 1886 A, p. 158.

Marsh, O. C. 1875 B, p. 244.

1877 E.

Nicholson and Lydekker 1889 A, p. 1356.

Osborn, H. F., in Scott and Osborn 1890 B, p. 89.

1890 D, p. 511.

Pavlov, M. 1892 A.

Scott, W. B. 1896 B.

1897 B.

Scott and Osborn, 1883 A, pp. 10, 17.

Woodward, A. S. 1898 B, p. 334.

Wortman, J. L. 1893 A.

Zittel, K. A. 1893 B, p. 285.

Hyracodon arcidens Cope.

Cope, E. D. 1873 S, p. 2.

Brandt, J. F. 1878 A, p. 24.

Cope, E. D. 1873 CC, p. 14.

1874 B, p. 493.

1879 C, p. 234.

Matthew, W. D. 1899 A, p. 57.

Roger, O. 1896 A, p. 186.

Scott and Osborn 1887 B, p. 171.

Trouessart, E. L. 1898 A, p. 746.

Oligocene (White River); Colorado.

Hyracodon major Scott and Osb.*Scott and Osborn* 1887 B, p. 170.

Matthew, W. D. 1899 A, p. 57.

Roger, O. 1896 A, p. 186.

Trouessart, E. L. 1898 A, p. 746.

Oligocene (White River). Locality unknown.

Hyracodon nebraskensis Leidy.*Leidy, J.* 1850 C, p. 121. (Rhinoceros.)

Brandt, J. F. 1878 A, p. 23.

Cope, E. D. 1873 CC, p. 14.

1874 B, p. 493.

1879 C, p. 234.

1886 U, p. 83. [*Aceratherium* (*Cænopus*) *pumilum*, in part.]

1887 N, p. 1003, fig. 17.

1889 I, p. 154. (*Aceratherium pumilum*, in part.)1891 A, p. 19, pl. iv, fig. 4. (*Aceratherium pumilum*.)

Hayden, F. V. 1888 B, p. 157. (Rhinoceros.)

King, C. 1878 A, p. 412. (Rhinoceros.)

Kowalevsky, W. 1873 A, p. 138.

Leidy, J. 1851 I, p. 331. (*Aceratherium*.)

1852, J, p. 556, pls. xii A, fig. 6; pl. xxii B, fig. 5. (Rhinoceros.)

1852 L, p. 63. (Rhinoceros.)

Leidy, J. 1854 A, pp. 86, 114, pls. xiv, xv. (Rhinoceros.)

1854 E, p. 157. (*Aceratherium*.)

1856 H, p. 92.

1865 B, p. 176.

1869 A, p. 391.

1871 C, p. 357.

Lydekker, R. 1886 A, p. 159.

Matthew, W. D. 1899 A, p. 57.

Osborn, H. F. 1896 C, pp. 711, 714, illus. 7.

1898 I, pp. 82, 93, figs. 2, 11.

1898 Q, p. 18.

Roger, O. 1896 A, p. 187.

Scott, W. B. 1896 B, pls. I-III.

Scott and Osborn, 1887 B, p. 169.

Trouessart, E. L. 1898 A, p. 746.

Zittel, K. A. 1893 B, p. 286, fig. 226.

Oligocene (White River); South Dakota, Colorado, Nebraska.

The name of this species is commonly spelled *nebrascensis*. The original form is here given.**Hyracodon? planiceps** Scott and Osb.*Scott and Osborn* 1887 B, p. 170.

Matthew, W. D. 1899 A, p. 57.

Trouessart, E. L. 1898 A, p. 746.

Oligocene (White River); South Dakota?.

AMYNODONTIDÆ.

Scott and Osborn 1883 A, pp. 4, 12.

Branco, W. 1897 A, p. 21. (Aminodontinæ.)

Cope, E. D. 1883 II, p. 969.

Nicholson and Lydekker 1889 A, p. 1365. (Aminodontinæ.)

Osborn, H. F. 1890 D, p. 50. (Aminodontidæ, Aminodontinæ.)

1895 A, p. 95.

Osborn, H. F. 1898 A, pp. 79, 80.

Osborn and Wortman 1892 A, p. 93. (Aminodontidæ, Aminodontinæ.)

1894 A, p. 208.

Pavlov, M. 1893 A, p. 41.

Scott and Osborn 1887 B, p. 164.

Zittel, K. A. 1893 B, p. 286.

AMYNODON Marsh. Type *Diceratherium advenum* Marsh.*Marsh, O. C.* 1877 D, p. 251.

Brandt, J. F. 1878 A, pp. 15, 25.

Cope, E. D. 1879 V, p. 771 f.

1882 II, p. 926. (Orthocynodon.)

1883 II, p. 969. (Orthocynodon.)

1887 K.

1890 C, p. 472.

Flower and Lydekker 1891 A, p. 412.

Marsh, O. C. 1877 E.

1893 D, p. 409.

Nicholson and Lydekker 1889 A, p. 1365.

Osborn, H. F. 1890 D, pp. 506, 551 (Aminodon); p. 508 (Orthocynodon, as subgenus).

1892 B, p. 764.

1893 D.

Pavlov, M. 1892 A, p. 172. (Aminodon, Orthocynodon.)

1893 A.

Scott and Osborn 1882 A, p. 223 (Aminodon); p. 223 (Orthocynodon, type *O. antiquus*).

1883 A. (Orthocynodon, Aminodon.)

1884 A. (Orthocynodon.)

1887 A, p. 261.

1887 B, p. 164.

Zittel, K. A. 1893 B, p. 286.

Aminodon advenum Marsh.*Marsh, O. C.* 1875 B, p. 244. (Diceratherium.)

Brandt, J. F. 1878 A, p. 32. (Diceratherium.)

King, C. 1878 A, p. 407.

L. P. B. 1885 A, p. 191, fig. 25.

Marsh, O. C. 1877 D, p. 252.

1884 F, fig. 72.

1885 B, fig. 106.

1897 D, p. 167, fig. 3. (Diceratherium.)

Matthew, W. D. 1899 A, p. 50.

Osborn, H. F. 1890 D, p. 508. [A. (Orthocynodon).]

Pavlov, M. 1892 A, p. 172. (Orthocynodon.)

Roger, O. 1896 A, p. 186.

Scott, W. B. 1892 A, p. 431.

Scott and Osborn 1882 A, p. 224. (Orthocynodon.)

1887 A, p. 262.

Trouessart, E. L. 1898 A, p. 746.

Eocene (Uinta); Utah.

Aminodon antiquus (Scott and Osb.).*Scott and Osborn* 1883 A, p. 4, pl. i; text fig. 1. (Orthocynodon.)

Matthew, W. D. 1899 A, p. 46.

Osborn, H. F. 1890 D, p. 508. [A. (Orthocynodon).]

Pavlov, M. 1893 A, p. 37.

Roger, O. 1896 A, p. 186.

Trouessart, E. L. 1898 A, p. 746.

Eocene (Bridger): Wyoming.

***Amynodon intermedius* Osb.**

Osborn, H. F. 1890 D, p. 508, pl. x, fig. 10.

Matthew, W. D. 1899 A, p. 50.

Osborn, H. F. 1896 A, p. 95.

Pavlov, M. 1893 A, p. 37, pl. iii.

Roger, O. 1896 A, p. 186.

Trouessart, E. L. 1898 A, p. 746.

Zittel, K. A. 1893 B, p. 287, fig. 227.

Eocene (Uinta); Utah.

METAMYNODON Scott and Osb. Type *M. planifrons* Scott and Osb.

Scott and Osborn 1887 B, p. 165.

Cope, E. D. 1887 K.

1887 N.

1890 C, p. 472.

Flower and Lydekker 1891 A, p. 412.

Nicholson and Lydekker 1889 A, p. 1365.

Osborn, H. F. 1890 D, p. 507.

1893 D, p. 40.

1893 E.

Pavlov, M. 1893 A, p. 41.

Wortman, J. L. 1893 A.

Zittel, K. A. 1893 B, p. 287.

***Metamynodon planifrons* Scott and Osb.**

Scott and Osborn 1887 B, p. 165, figs. 7-9.

Cope, E. D. 1887 N, p. 1001, figs. 15, 16.

Matthew, W. D. 1899 A, p. 57.

Osborn, H. F. 1896 C, pp. 706, 710, illus. 6.

1898 I, p. 83, fig. 3; p. 91, fig. 10; p. 93, fig. 12.

1898 Q, p. 9.

Osborn and Wortman 1894 A, p. 209.

1895 A, p. 373, pls. x, xi.

Roger, O. 1896 A, p. 186.

Oligocene (White River); South Dakota.

RHINOCEROTIDÆ.

By some authors the spelling *Rhinocertidae* is employed.

Blainville, H. M. D. 1864 A, iii, x, pls. i-xiv.

Branco, W. 1897 A, p. 20.

Brandt, J. F. 1849 B.

1878 A.

Cope, E. D. 1879 C.

1879 V.

1881 G, pp. 378, 393.

1881 O.

1884 O, pp. 615, 691.

1887 K. (Cænopidae.)

1897 N. (Rhinocerotidae, Cænopidae.)

Cuvier, G. 1834 A, iii, pp. 1-192, with plates.

Falconer, H. 1868 A, p. 309.

Flower, W. H. 1876 A.

1876 B, xiii, p. 328.

1883 D, p. 428.

Flower and Lydekker 1891 A, p. 402.

Gray, J. E. 1867 B.

1869 A.

Huxley, T. H. 1872 A, p. 307.

Ledy, J. 1869 A, p. 219.

1871 C, p. 356.

Lydekker, R. 1881 A.

1886 A, p. 90.

Nicholson and Lydekker 1889 A, p. 1364.

Osborn, H. F., in Scott and Osborn 1890 B, p. 90.

1893 D.

1898 I, pp. 79, 80, 94, 95.

1900 E, p. 885.

1900 H.

Owen, R. 1846 B, p. 587.

1866 B, p. 450.

1868 A, p. 356.

Pavlov, M. 1887 A, p. 358.

1888 A, p. 173.

1892 A.

Roger, O. 1889 A.

1896 A, p. 186.

Schlosser, M. 1886 A, p. 263.

1886 B, p. 22.

1888 A.

1890 C.

Scott, W. B. 1892 A, p. 432.

Scott and Osborn 1884 A.

Slade, D. D. 1893 A.

Steinmann and Döderlein 1890 A, p. 772.

Trouessart, E. L. 1898 A, p. 743.

Weyhe, — 1875 A, p. 121.

Woodward, A. S. 1898 B, p. 332.

Zittel, K. A. 1893 B, p. 281.

DICERATHERIINÆ.

Osborn, H. F. 1898 I, p. 121.

1900 E, p. 885.

1900 H, p. 232.

Osborn and Wortman 1892 A, p. 93.

Scott and Osborn 1883 A, p. 20. ("Diceratherium series.")

TRIGONIAS Lucas. Type *T. osborni* Lucas.

Lucas, F. A. 1900 D, p. 221.

Osborn, H. F. 1900 H, p. 233.

***Trigonias osborni* Lucas.**

Lucas, F. A. 1900 D, p. 221, figs. 1, 2.

Osborn, H. F. 1900 D, p. 767, fig. 1.

Oligocene (White River); South Dakota.

LEPTACERATHERIUM Osb. Type *Aceratherium trigonodum* Osb. and Wort.

Osborn, H. F. 1898 I, p. 182.

Leptaceratherium trigonodum (Osb. and Wort.).

Osborn and Wortman 1894 A, p. 201, pl. i, fig. A; text fig. 1. (Aceratherium.)

Matthew, W. D. 1899 A, p. 57.

Osborn, H. F. 1898 I, pp. 113, 115, 132, pl. xii; pl. xiii, fig. 1; pl. xix, fig. 27; text figs. 25, 26, 35, 44. Osborn and Wortman 1894 A, p. 378. (Aceratherium.)

Roger, O. 1896 A, p. 188. (Rhinoceros.)

Trouessart, E. L. 1898 A, p. 748. (Aceratherium.) Oligocene (White River); South Dakota.

CÆNOPUS Cope. Type *Aceratherium mite* Cope.

Cope, E. D. 1880 M, p. 610.

1881 G, p. 393.

1884 O, p. 691.

1887 K.

Osborn, H. F. 1900 E, p. 233.

Zittel, K. A. 1893 B, pp. 289, 291. (Syn. of *Aceratherium*.)

Cænopus copei Osb.

Osborn, H. F. 1898 I, pp. 113, 128, 131, 146, pl. xv; text figs. 25, 33, 34, 44. (Aceratherium.)

Matthew, W. D. 1899 A, p. 57. (Aceratherium.)

Osborn, H. F. 1900 H, p. 226.

Osborn and Wortman 1894 A, p. 203, pl. ii, fig. B; text fig. 2, B. (Aceratherium mite, not of Cope.)

1896 A, p. 371. (No name.)

Trouessart, E. L. 1899 A, p. 1346. (Aceratherium.) Oligocene (White River); South Dakota.

Cænopus mitis Cope.

Cope, E. D. 1874 B, p. 493. (Aceratherium.)

Brandt, J. F. 1878 A, p. 30. (Aceratherium.)

Cope, E. D. 1879 C, p. 235. (Aceratherium.)

1879 P, p. 333. (Aceratherium.)

1879 V, p. 771c. (Aceratherium.)

1880 M. (Cænopus.)

1886 H. (Aceratherium.)

1886 U, p. 83. (Aceratherium mite; A. pumilum, in part.)

1887 K. (Cænopus.)

1889 I, p. 154. (Aceratherium mite; A. pumilum, in part.)

1891 A, p. 19, pl. iv, figs. 2, 3 (Cænopus); p. 19, pl. iv, fig. 4. (C. pumilis.)

Lydekker, R. 1881 A, p. 21. (Aceratherium.)

Matthew, W. D. 1899 A, p. 57. (Aceratherium.)

Osborn, H. F. 1893 C. (Aceratherium.) 1898 I, pp. 89, 136, figs. 8, 36, 37, 39. (Aceratherium.)

Osborn and Wortman 1894 A, p. 208. (A. pumilum.) 1896 A, p. 371. (Aceratherium.)

Roger, O. 1896 A, p. 187 (Rhinoceros pumilum); p. 188 (R. mite).

Scott, W. B. 1896 B, p. 367. (Aceratherium.)

Trouessart, E. L. 1896 A, p. 748. (Aceratherium mite, A. pumilum.)

Wortman, J. L. 1893 A, p. 104. (Aceratherium.) Oligocene (White River); South Dakota, Canada.

Cænopus occidentalis (Leidy).

Leidy, J. 1851 E, p. 276. (Rhinoceros.)

Brandt, J. F. 1878 A, p. 31. (Aceratherium.)

Cope, E. D. 1873 CC, p. 14. (Aceratherium.)

1874 B, p. 495. (Aceratherium.)

Cope, E. D. 1879 C, p. 235. (Aceratherium.)

1879 P, p. 333. (Aceratherium.)

1887 K.

1887 N, p. 1000, fig. 14.

1891 A, p. 19. (Aceratherium.)

King, C. 1878 A, p. 412. (Aceratherium.)

Hayden, F. V. 1858 B, p. 157. (Rhinoceros.)

Ledy, J. 1850 B, p. 119. (Rhinoceros; no description.)

1851 I, p. 331. (Aceratherium.)

1852 J, p. 552, pl. ix, figs. 1, 2. (Rhinoceros.)

1852 L, p. 64. (Rhinoceros.)

1853 D, p. 392. (Rhinoceros.)

1854 A, pp. 81, 114, pls. xii, xiii. (Rhinoceros.)

1854 E, p. 157. (Aceratherium.)

1865 B. (Rhinoceros.)

1865 A, pp. 220, 390, pl. xxi, fig. 34; pl. xxii; pl. xxiii, figs. 1-3. (Rhinoceros, Aceratherium.)

1871 C, p. 356. (Rhinoceros.)

Lydekker, R. 1881 A, p. 21. (Aceratherium.)

1886 A, p. 143. (Rhinoceros.)

Matthew, W. D. 1899 A, p. 57. (Aceratherium.)

Osborn, H. F. 1893 C. (Aceratherium.)

1898 I, pp. 90, 109, 128, 131, 134, 150, pl. xiii, figs. 5, 6, 7; pl. xvi; pl. xix, fig. 9; text figs. 9, 21, 33, 34, 35. (Aceratherium.)

1900 H, p. 245. (Cænopus.)

Osborn and Wortman 1894 A, p. 204, pl. ii, fig. C; text fig. 3, A. (Aceratherium.)

1896 A, p. 373, fig. 12. (Aceratherium.)

Pavlov, M. 1892 A. (Aceratherium.)

Pohlig, H. 1893 A, p. 41, pl. iii. (Aceratherium.)

Roger, O. 1896 A, p. 188. (Rhinoceros.)

Scott and Osborn 1887 B, p. 169. (Aceratherium.)

Trouessart, E. L. 1898 A, p. 747. (Aceratherium.)

Oligocene (White River); South Dakota, Nebraska, Colorado, Canada.

Cænopus simplicidens Cope.

Cope, E. D. 1891 D, p. 48. (Cænopus.)

Matthew, W. D. 1899 A, p. 57. (Aceratherium.)

Osborn, H. F. 1898 I, p. 145, fig. 43. (Aceratherium.)

Osborn and Wortman 1894 A, 209. (Aceratherium.)

Roger, O. 1896 A, p. 188. (Rhinoceros.)

Trouessart, E. L. 1898 A, p. 748. (Aceratherium.) Oligocene (White River); Nebraska.

Cænopus tridactylus Osb.

Osborn, H. F. 1893 C. (Aceratherium.)

Hatcher, J. B. 1894 B. (Dicceratherium proavium.)

1897 A. (Dicceratherium proavium and Aceratherium tridactylum.)

- Matthew, W. D. 1899 A, p. 57. (*Aceratherium*.)
 Osborn, H. F. 1893 E, p. 55. (*Aceratherium*.)
 1898 I, pp. 84, 94, 109, 115, 128, 131, 134, 158,
 pl. xiii, fig. 8; pl. xvii; pl. xix, fig. 30; pl.
 xx, text figs. 4, 13, 21, 26, 33, 34, 35, 48, 49.
 (*Aceratherium*.)
 1898 Q, pp. 13, 15. (*Aceratherium*.)
 1900 H, p. 245. (*Cenopus*.)
 Osborn and Wortman 1891 A, p. 206, pl. ii, fig. E;
 pl. iii (*Aceratherium tridactylum*); p. 208 (*Dic-*
eratherium proavittum).

- Osborn and Wortman 1895 A, p. 373. (*Acerathe-*
rium.)
 Roger, O. 1896 A, p. 189. (*Rhinoceros proavittum*.)
 Scott, W. B. 1896 B, p. 381. (*Aceratherium*.)
 Trouessart, E. L. 1899 A, p. 748 (*Aceratherium*
tridactylum); p. 752 (*Diceratherium proavi-*
tum).
 Oligocene (White River); South Dakota,
 North Dakota.

DICERATHERIUM Marsh. Type *D. armatum* Marsh.

- Marsh, O. C. 1875 B, p. 242.
 Branco, W. 1897 A, p. 21.
 Brandt, J. F. 1878 A, p. 32.
 Cope, E. D. 1879 C, p. 233.
 1879 V, pp. 771b, 771h.
 1881 G, p. 393.
 1884 O, p. 692.
 1887 N, p. 1004.
 Flower, W. H. 1876 B, xiii, p. 327.
 Flower and Lydekker 1891 A, p. 411.
 Hatcher, J. B. 1894 B.
 Lydekker, R. 1896 A, p. 91. (Syn. of *Rhinoceros*.)
 Marsh, O. C. 1876 G, p. 60.
 1877 E.
 Matthew, W. D. 1899 A, p. 22.
 Nicholson and Lydekker 1889 A, p. 1368.
 Osborn, H. F. 1898 I.
 1900 H, p. 232.
 Schlosser, M. 1886 B, p. 24.
 Scott and Osborn 1893 A, p. 21.
 Woodward, A. S. 1898 B, p. 335.
 Zittel, K. A. 1898 B, p. 292.

Diceratherium annectens Marsh.

- Marsh, O. C. 1873 H, p. 409. (*Rhinoceros*.)
 Brandt, J. F. 1878 A, p. 4. (*Rhinoceros*.)
 Marsh, O. C. in King, C. 1878 A, p. 424. (*Dicera-*
therium.)
 Leidy, J. 1873 B, p. 328. (*Rhinoceros*.)
 Matthew, W. D. 1899 A, p. 63. (*Aceratherium*.)
 Trouessart, E. L. 1898 A, p. 748. (*Aceratherium*.)
 Miocene (John Day); Oregon.

Diceratherium armatum Marsh.

- Marsh, O. C. 1875 B, p. 242.
 Brandt, J. F. 1878 A, p. 32.
 King, C. 1878 A, p. 424.
 Matthew, W. D. 1899 A, p. 63.
 Roger, O. 1896 A, p. 189. (*Rhinoceros*.)
 Trouessart, E. L. 1898 A, p. 752.
 Miocene (John Day); Oregon.

Diceratherium hesperium (Leidy).

- Leidy, J. 1865 B, p. 177. (*Rhinoceros*.)
 Brandt, J. F. 1878 A, p. 40. (*Rhinoceros*.)
 Cope, E. D. 1879 p. 333. (Syn.? of *A. pacificum*.)
 Dana, J. D. 1879 A, p. 233. (*Rhinoceros*.)
 Leidy, J. 1869 A, pp. 230, 390, pl. xxiii, figs. 11, 12.
 (*Rhinoceros*.)
 1870 P, p. 112. (*Rhinoceros*.)
 1871 C, p. 356. (*Rhinoceros*.)

- Leidy, J. 1873 B, pp. 220, 328, pl. ii, figs. 8, 9. (*Rhi-*
noceros hesperius?.)
 Matthew, W. D. 1899 A, p. 63.
 Roger, O. 1896 A, p. 189. (*Rhinoceros*.)
 Trouessart, E. L. 1898 A, p. 751. (*Aphelops*.)
 Whitney, J. D. 1879 A, p. 243. (*Rhinoceros*.)
 Miocene; California: (John Day); Oregon?.

Diceratherium nanum Marsh.

- Marsh, O. C. 1875 B, p. 243.
 Brandt, J. F. 1878 A, p. 32.
 King, C. 1878 A, p. 424.
 Matthew, W. D. 1899 A, p. 63.
 Roger, O. 1896 A, p. 189. (*Rhinoceros*.)
 Trouessart, E. L. 1898 A, p. 752.
 Miocene (John Day); Oregon.

Diceratherium oregonense (Marsh).

- Marsh, O. C. 1873 H, p. 410. (*Rhinoceros*.)
 Brandt, J. F. 1878 A, p. 41. (*Rhinoceros*.)
 Leidy, J. 1873 B, p. 328. (*Rhinoceros*.)
 Matthew, W. D. 1899 A, p. 71. (*Aceratherium*.)
 Roger, O. 1896 A, p. 189. (*Rhinoceros*.)
 Trouessart, E. L. 1898 A, p. 751. (*Aphelops*.)
 Miocene (Loup Fork); Oregon.

Diceratherium pacificum (Leidy).

- Leidy, J. 1871 M, p. 248. (*Rhinoceros*.)
 Brandt, J. F. 1878 A, p. 41. (*Rhinoceros*.)
 Cope, E. D. 1879 B, pp. 58, 235.
 1879 C, p. 229.
 1879 P, p. 333. (*Aphelops*.)
 1879 V, p. 771c. (*Diceratherium*.)
 King, C. 1878 A, p. 424 (*Rhinoceros*.)
 Leidy, J. 1870 P, p. 112. (*Rhinoceros occidentalis*.)
 1873 B, pp. 221, 328, pl. ii, figs. 6, 7; pl. vii,
 figs. 24, 25. (*Rhinoceros*.)
 Lydekker, R. 1881 A, p. 21.
 Matthew, W. D. 1899 A, p. 63.
 Roger, O. 1896 A, p. 188. (*Rhinoceros*.)
 Trouessart, E. L. 1898 A, p. 748.
 Miocene (John Day); Oregon.

Diceratherium truquianum (Cope).

- Cope, E. D. 1879 P, p. 333. (*Aceratherium*.)
 1879 C, pp. 229, 335. (*Aceratherium*.)
 Lydekker, R. 1881 A, p. 21. (*Aceratherium*.)
 Matthew, W. D. 1899 A, p. 63. (*Aceratherium*.)
 Roger, O. 1896 A, p. 188. (*Rhinoceros*.)
 Trouessart, E. L. 1898 A, p. 748. (*A. truquianum*.)
 Miocene (John Day); Oregon.

ELASMOTHERIINÆ.

- Bonaparte, C. L.* 1851, *Conspect. Syst. Mastozool.*, pp. 472-479. (Elasmotheriina.)
Gill, T. 1872 B, pp. 12, 88. (Elasmotheriidae.)
Osborn and Wortman 1892 A, p. 93. (Aceratheriinae.)

- Osborn and Wortman* 1895 A, p. 371. (Aceratheriinae.)
Osborn, H. F. 1898 I, p. 121. (Aceratheriinae.)
 1900 H, p. 240. (Aceratheriinae.)
Zittel, K. A. 1893 B, p. 296

ACERATHERIUM Kaup. Type *Rhinoceros incisurus* Cuv.

- Kaup, P.* 1832 B, p. 904.
Branco, W. 1897 A, p. 21.
Brandt, J. F. 1878 A, pp. 11, 37.
Bronn, H. G. 1838 A, p. 1213, pl. xlvI, fig. 2.
Cope, E. D. 1874 B, p. 493.
 1879 C, pp. 229, 235.
 1879 F, p. 333.
 1879 V, p. 771a.
 1881 G, p. 393.
 1883 Y.
 1884 O, p. 691. (Aceratherium.)
 1887 K.
 1887 N, p. 1004.
Duvornoy, G. L. 1855 A, p. 51.
Filhol, H. 1891 A, p. 201.
Flower, W. H. 1876 B, xlii, p. 328.
Flower and Lydekker 1889 A, p. 411. (Syn. of *Rhinoceros*.)
Gaudry, A. 1878 B, p. 46.
Hatcher, J. B. 1894 C, p. 240. (Aphelops.)
Leidy, J. 1851 I, p. 331.
 1854 A, p. 81.
Lydekker, R. 1881 A, p. 9.
 1884 B, pp. 2, 8.
 1886 A, p. 91. (Syn. of *Rhinoceros*.)
Marsh, O. C. 1877 E.
Mermier, É. 1896 A, p. 225.
Nicholson and Lydekker 1889 A, p. 1367.
Osborn, H. F. 1890 D, pp. 511, 550 (Aceratherium).
 p. 542 (Aphelops).
 1898 C.
 1898 E, p. 52.
 1898 I.
 1898 P.
 1899 A, p. 161, pl. i.
 1900 H, p. 241. (Aceratherium or Aphelops.)

- Peters, K.* 1870 A.
Pictet, F. J. 1853 A, p. 296.
Pomel, A. 1853 A, p. 76. (Acerotherium.)
Schlosser, M. 1886 A, p. 233.
 1886 B, p. 24 (Aphelops); p. 25 (Aceratherium).
Scott, W. B. 1892 A, p. 431.
 1895 C, p. 122. (Aphelops.)
 1896 B. (Aceratherium, Aphelops.)
Scott and Osborn 1883 A, p. 10 *et seq.*; p. 21. (Aceratherium, Aphelops.)
 1887 B, p. 169.
 1890 B, p. 89 (Aceratherium); p. 92 (Aphelops).
Steinmann and Döderlein 1890 A, p. 774. (Aceratherium, Peraceras, Aphelops)
Williston, S. W. 1894 E.
Woodward, A. S. 1898 B, p. 334. (Aceratherium.)
Wortman, J. L. 1893 A.
Zittel, K. A. 1893 B, p. 289.

Aceratherium platycephalum Osb. and Wort.

- Osborn and Wortman* 1894 A, p. 206, pl. ii, E; text figs. 2, E; 3, D.
Matthew, W. D. 1899 A, p. 57.
Osborn, H. F. 1898 I, pp. 115, 116, 128, 130, 134, pl. xiii, fig. 9; pl. xviii; text figs. 26, 27, 33, 35.
 1900 H, pp. 240, 243.
Osborn and Wortman 1895 A, p. 373.
Roger, O. 1896 A, p. 188. (Rhinoceros.)
Trouessart, E. L. 1898 A, p. 748.
 Oligocene (White River); South Dakota.

APHELOPS Cope. Type *A. megalodus* Cope.

- Cope, E. D.* 1873 C, p. 1.
Branco, W. 1897 A, p. 21. (Aphelops, Peraceras.)
Brandt, J. F. 1878 A, p. 30.
Cope, E. D. 1875 F, p. 71.
 1877 K, p. 316.
 1879 C, pp. 229, 235.
 1879 F, p. 333.
 1879 V, p. 771a.
 1880 K, p. 540. (Peraceras, type *Aphelops superciliosus*.)
 1881 G, p. 393. (Aphelops, Peraceras.)
 1884 G, pp. 8, 9.
 1884 O, p. 691. (Aphelops, Peraceras.)
 1887 N, p. 1004. (Peraceras.)
Flower, W. H. 1876 B, xlii, p. 328.

Aphelops crassus (Leidy).

- Leidy, J.* 1858 E, p. 28. (Rhinoceros.)
Brandt, J. F. 1878 A, p. 30. (Aceratherium.)

- Cope, E. D.* 1874 B, p. 521. (Aceratherium.)
 1874 P, p. 12.
 1877 K, p. 317.
 1879 C, p. 237.
 1879 V, p. 771j. (Aceratherium.)
Hayden, F. V. 1858 B, p. 157. (Rhinoceros.)
King, C. 1878 A, p. 424. (Diceratherium.)
Leidy, J. 1865 B. (Rhinoceros.)
 1869 A, pp. 228, 390, pl. xxiii, figs. 4-9. (Rhinoceros.)
 1871 C, p. 356. (Rhinoceros.)
Lydekker, R. 1881 A, p. 20. (Aceratherium.)
Matthew, W. D. 1899 A, p. 71. (Syn. of *Aceratherium megalodum*.)
Scott and Osborn 1890 B, p. 92.
Roger, O. 1896 A, p. 188. (Rhinoceros.)
Trouessart, E. L. 1898 A, p. 751.
 Miocene (Loup Fork); Nebraska, Kansas, Colorado.

Aphelops jemezianus Cope.

- Cope, E. D. 1875 P, p. 260.
 1875 F, p. 72.
 1877 K, pp. 317, 319, pl. lxxiii, figs. 3, 4; pl. lxxiv, fig. 4.
 Lydekker, R. 1881 A, p. 21. (Aceratherium.)
 Matthew, W. D. 1899 A, p. 72. (Aceratherium.)
 Roger, O. 1896 A, p. 189. (Rhinoceros.)
 Trouessart, E. L. 1898 A, p. 751.
 Miocene (Loup Fork); New Mexico.

Aphelops malacorhinus Cope.

- Cope, E. D. 1878 X, p. 488.
 1878 H, p. 383.
 1879 C, pp. 229, 237.
 1879 V, p. 7714, figs. 7, 8.
 1880 K, p. 540. (Peraceras.)
 1892 AA. (A. malacorhinus, A. longipes.)
 Leidy, J. 1890 A. (Rhinoceros longipes.)
 Leidy and Lucas 1896 A, p. 45, pl. x, figs. 11-16; pl. xi, figs. 3, 4, 11; pl. xiii, figs. 6-8; pl. xiv, fig. 2; pl. xvi, figs. 5-10.
 Lydekker, R. 1881 A, p. 21. (Aceratherium.)
 Matthew, W. D. 1899 A, p. 71. (?Teleoceras.)
 Roger, O. 1896 A, p. 189. (Rhinoceros longipes.)
 Trouessart, E. L. 1898 A, p. 75.
 Miocene (Loup Fork); Kansas, Florida.

Aphelops? matutinus (Marsh).

- Marsh, O. C. 1870 F. (Rhinoceros.)
 1893 D, p. 411, pl. x, fig. 4. (Rhinoceros.)
 Roger, O. 1896 A, p. 188. (Rhinoceros.)
 Trouessart, E. L. 1898 A, p. 748. (Aceratherium.)
 Miocene; New Jersey.

Aphelops megalodus Cope.

- Cope, E. D. 1873 C, p. 1. (Aceratherium; made type of Aphelops.)
 Brandt, J. F. 1878 A, p. 30. (Aceratherium.)
 Cope, E. D. 1873 CC, p. 14.
 1874 B, p. 520. (Aceratherium.)
 1874 P, p. 11.
 1875 F, p. 71.
 1877 K, p. 317.
 1878 X.

Cope, E. D. 1879 C, pp. 229, 237.

- 1879 V, p. 771c, figs. 1, 2, 4, 5.
 1881 J, p. 270.
 1889 C, p. 189 *et seq.*
 Lydekker, R. 1881 A, p. 21. (Aceratherium.)
 1886 A, p. 141. (Rhinoceros.)
 Matthew, W. D. 1899 A, p. 71. (Aceratherium.)
 Osborn, H. F. 1893 C. (Aceratherium.)
 1898 C. (Aceratherium.)
 1898 I, p. 115, fig. 26. (Aceratherium.)
 Pavlow, M. 1892 A, p. 176. (Aceratherium.)
 Roger, O. 1896 A, p. 188. (Syn. of Rhinoceros crassus.)
 Trouessart, E. L. 1898 A, p. 751.
 Zittel, K. A. 1893 B, p. 291, fig. 232. (Rhinoceros.)
 Miocene (Loup Fork); Colorado.

Aphelops meridianus (Leidy).

- Leidy, J. 1865 B, p. 176. (Rhinoceros.)
 Brandt, J. F. 1878 A, p. 40. (Rhinoceros.)
 Cope, E. D. 1875 F, p. 71.
 1877 K, pp. 316, 317, pl. lxxiii, figs. 1, 2; pl. lxxiv, figs. 1-3.
 1879 C, pp. 229, 237.
 Leidy, J. 1869 A, pp. 229, 390, pl. xxiii, fig. 10. (Rhinoceros.)
 1871 C, p. 356. (Rhinoceros.)
 Lydekker, R. 1881 A, p. 21. (Aceratherium.)
 Matthew, W. D. 1899 A, p. 71. (Syn.? of A. malacorhinus.)
 Roger, O. 1896 A, p. 189. (Rhinoceros.)
 Trouessart, E. L. 1898 A, p. 751.
 Miocene (Loup Fork); Texas, New Mexico.

Aphelops profectus (Matth.).

- Matthew, W. D. 1899 A, p. 71. (Aceratherium.)
 Miocene (Loup Fork); Colorado.

Aphelops superciliosus (Cope).

- Cope, E. D. 1880 K, p. 540. (Peraceras.)
 1887 N, p. 1004, fig. 18. (Peraceras.)
 Matthew, W. D. 1899 A, p. 71. (Teleoceras.)
 Osborn, H. F. 1898 I, p. 106, fig. 18; p. 109, fig. 21.
 Roger, O. 1896 A, p. 189. (Rhinoceros.)
 Trouessart, E. L. 1898 A, p. 751.
 Miocene (Loup Fork); Nebraska.

TELEOCERATINÆ.

Osborn, H. F. 1900 H, p. 249. (Brachypodinae.)

TELEOCERAS Hatcher. Type *T. major* Hatcher.

- Hatcher, J. B. 1894 A.
 1894 C, p. 241.
 Osborn, H. F. 1898 E, p. 51.
 1898 I, p. 98. (Syn. of Aceratherium.)
 1900 H.

Teleoceras fossiger (Cope).

- Cope, E. D. 1878 H, p. 382. (Aphelops.)
 1878 X. (Aphelops.)
 1879 C, pp. 229, 237. (Aphelops.)
 1879 V, p. 771c, figs. 3, 6. (Aphelops.)
 1890 E, p. 141. (Aphelops.)
 1883 R. (Aphelops.)
 1884 G, p. 8. (Aphelops.)

- Cope, E. D. 1884 J, p. 309. (Aphelops.)
 1884 Q. (Aphelops.)
 1887 N, p. 1006, fig. 22. (Aphelops.)
 1892 AA. (Aphelops proterus.)
 1893 A, p. 20. (Aphelops.)
 Hatcher, J. B. 1894 A. (Teleoceras major.)
 1894 C, p. 241, pl. i, fig. 1; pl. ii, figs. 2, 6 (Teleoceras major); pl. ii, figs. 3, 5 (Aphelops fossiger).
 Leidy, J. 1885 A, p. 33. (Rhinoceros proterus Leidy.)
 1886 A, figs. 1, 2. (?Eusyodon maximus.)
 1887 A. (Rhinoceros proterus.)
 1890 A. (Rhinoceros proterus.)

- Leidy, J. 1892 A. (*Rhinoceros proterus*.)
 Leidy and Lucas 1896 A, p. 41, pls. viii, ix; pl. x, figs. 1-10; pl. xi, figs. 1, 2, 5-10; pl. xii, figs. 1-14; pl. xiii, figs. 1-5; pl. xiv, figs. 1-7; pl. xv, figs. 1-8. (*Aphelops fossiliger*, with *Rhinoceros proterus* Leidy a synonym.)
 Lydekker, R. 1881 A, p. 20.
 1884 B, p. 10.
 Marsh, O. C. 1887 B, p. 325, figs. 3, 4. (*Aceratherium acutum*.)
 1897 C, pp. 525, 527, fig. 102. (*Aceratherium acutum*.)
 Matthew, W. D. 1899 A, p. 71.
 Osborn, H. F. 1893 C.
 1898 C, fig. 1. (*Teleoceras*.)

- Osborn, H. F. 1898 E, pls. iv, iv A. (*Teleoceras*.)
 1898 I, pp. 99, 109, 110, figs. 15, 21, 22. (*Aceratherium*.)
 1898 Q, p. 12.
 1900 H, p. 249.
 Pavlow, M. 1892 A, p. 176.
 Roger, O. 1896 A, p. 188. (*Rhinoceros*.)
 Scott, W. B. 1893 B, p. 659. (*Aphelops*.)
 Scott and Osborn 1890 B, p. 92, pls. ii, iii, text fig. 15. (*Aphelops*.)
 Trouessart, E. L. 1898 A, p. 761. (*Aphelops*.)
 Williston, S. W. 1894 E, pl. viii. (*Aphelops*.)
 Zittel, K. A. 1893 B, p. 292, fig. 233. (*Aphelops*.)
 Miocene (Loup Fork); Kansas, Nebraska, Colorado, Florida.

RHINOCEROTINÆ.

- Branco, W. 1897 A, p. 21.
 Brandt, 1878 A, p. 25.
 Osborn, H. F. 1898 I, p. 121. (*Ceratorhinæ*.)
 1900 H, p. 264. (*Ceratorhinæ*, *Rhinocerotinæ*.)
 Osborn and Wortman 1892 A, p. 93.
 Roger, O. 1896 A, p. 186. (*Rhinocerotinæ*.)
 Trouessart, E. L. 1898 A, p. 747.
 Zittel, K. A. 1893 B, p. 288. (*Rhinocerotinæ*.)

Although no species found in North America is here admitted to this subfamily and to the genus *Rhinoceros*, citations to some of the literature of this subfamily and the genus are given below, since the genus *Rhinoceros* is the type of this whole group. For additional bibliography see Osborn 1898 I, pp. 121-125; 1900 H, p. 266.

RHINOCEROS Linn.

- Linnaeus* C., 1758, *Syst. Nat.*, ed. 10, i, p. 56.
 Brandt, J. F. 1849 B.
 1878 A, p. 33.
 Cope, E. D. 1879 C, p. 229.
 1881 G, p. 393.
 1884 O, p. 692.
 1887 N, p. 1003.
 1889 C, p. 258.
 Cuvier, G. 1834 A, iii, pp. 1-185, with plates.
 Duvornoy, G. L. 1855 A.
 Filhol, H. 1891 A, p. 194.
 Flower, W. H. 1876 A.
 1885 A.
 Flower and Lydekker 1891 A, p. 402.
 Gaudry, A. 1878 B, p. 44.
 Gervais, P. 1859 A, p. 87.
 Gray, J. E. 1867 B, p. 1008.
 1869 A, p. 300.
 Huxley, T. H. 1872 A, p. 307.
 Kowalevsky, W. 1873 A, pp. 219, 222.
 Leidy, J. 1854 A, pp. 79, 114.
 1871 C, p. 356.
 Lydekker, R. 1881 A.
 1886 A, p. 91.
 Meyer, H. 1864 A.
 Nicholson and Lydekker 1889 A, p. 1368.

- Osborn, H. F. 1898 E, p. 52.
 1898 I.
 Owen, R. 1844 A, p. 220.
 1845 B, p. 587.
 1846 A, p. 325.
 Pavlow, M. 1888 A, p. 173.
 1892 A.
 Peters, K. 1870 A.
 Roger, O. 1896 A, p. 186.
 Trouessart, E. L. 1898 A, p. 752.
 Zittel, K. A. 1893 B, p. 293.

***Rhinoceros* alleghaniensis Feath-
erst.**

- Featherstonhaugh*, G. W. 1831 A, pl. i.
 Blainville, H. M. D. 1864 A, *Rhinoceros*, p. 172. (*Rhinoceros*.)
 Glebel, C. G. 1847 A, p. 185.
 Harlan, R. 1834 B, p. 62.
 1835 B, p. 268.
 Leidy, J. 1854 A, pp. 10, 79.
 1869 A, p. 444.

The subject of the above references is now generally conceded to be merely a worn piece of sandstone.

Suborder ARTIODACTYLA Owen.

- Owen, R. 1848 A, p. 131.
 Baur, G. 1884 F.
 Branco, W. 1897 A, p. 22.
 Burmeister, H. 1867 A, p. 236. (*Paridigitata*.)
 Cope, E. D. 1873 E, p. 562.
 1873 F, p. 39.
 1874 M.
 1880 B, p. 458.

- Cope, E. D. 1881 I, p. 269.
 1881 J.
 1882 A.
 1882 Y.
 1883 D. (*Diplarthra*, part.)
 1884 C.
 1884 H.
 1884 O, pp. 379, 716.

- Cope, E. D. 1884 DD.
 1885 B.
 1886 C, p. 615.
 1887 B.
 1887 N, p. 985.
 1887 S.
 1888 K, p. 163. (Diplarthra, part.)
 1888 X.
 1889 C, p. 148 *et seq.*
 1889 G.
 1891 N, p. 84. (Diplarthra, part.)
 1898 B, p. 125. (Diplarthra, part.)
 Cope and Wortman 1884 A, p. 15.
 Earle, C. 1893 B.
 Flower, W. H. 1874 A.
 1874 A.
 1876 B, xlii, p. 327.
 1883 A.
 1883 D, p. 428.
 1885 A.
 Flower and Lydekker 1891 A, p. 275.
 Gadow, H. 1898 A, p. 48.
 Gegenbaur, C. 1898 A.
 Gill, T. 1872 A, p. 298.
 1872 B, pp. 8, 71.
 Gill and Copes 1877 A, p. 1020.
 Gruber, W. 1859 A. (Multungulata.)
 Haeckel, E. 1895 A, p. 549.
 Hay, O. P. 1899 F, p. 682.
 Huxley, T. H. 1870 A, p. 440.
 1872 A, p. 312.
 Kowalevsky, W. 1874 A.
 Leuthardt, F. 1891 A, p. 121. (Paraxonia.)
 Lydekker, R. 1885 C.
 1885 E, p. 469. (Diplarthra, part.)
 1896 B.
 Marsh, O. C. 1877 E.
 1884 F, p. 177. (Climodactyla, Paraxonia.)
 Nicholson and Lydekker 1889 A, p. 1313.
 Osborn, H. F. 1893 A, p. 379 *et seq.*
 1893 D.
 1900 C, p. 568.
 Owen, R. 1845 B, p. 527. ("Anisodactyle ungulataes.")
 1857 A.
 1866 B, p. 457.
 1868 A, p. 343.
 Paulli, S. 1900 A, p. 198.
 Pavlow, M. 1900 A.
 Pomel, A. 1848 B, p. 326. ("Artiodactyles.")
 Röse, C. 1896 A.
 Roger, O. 1896 A, p. 198.
 Rüttimyer, L. 1865 A. (Ungulata paridigitata.)
 1888 A. (Diplarthra, part.)
 Schmidt, O. 1886 A, p. 137.
 Schlosser, M. 1885 A, p. 684.
 1886 B.
 1888 A.
 1889 A.
 1890 C.
 1890 D.
 1892 A.
 Scott, W. B. 1892 A, p. 432.
 Slade, D. D. 1893 A.
 Steinmann and Döderlein 1890 A, p. 784.
 Tomes, C. S. 1896 A, p. 392.
 Tornier, G. 1888 A.
 Turner, H. N. 1848 A.
 Weber, M. 1886 A, p. 226.
 Weyhe, —. 1875 A, p. 118.
 Wiedersheim, B. 1881 A.
 Woodward, A. S. 1898 B, p. 338.
 Wortman, J. L. 1883 A, p. 706.
 1885 A, p. 297. (Diplarthra, part.)
 1893 B, p. 208. (Diplarthra, part.)
 Zittel, K. A. 1893 B, pp. 315, 727.

Superfamily PANTOLESTOIDEA Cope.

Cope, E. D. 1887 B, p. 378.

| Cope, E. D. 1898 B, p. 130. (Trigonolestoides.)

PANTOLESTIDÆ.

Cope, E. D. 1884 O, p. 719.

1886 C, p. 615.

1887 B, p. 378.

1888 X, p. 1079.

Haeckel, E. 1896 A, p. 554. (Pantolestida.)

Matthew, W. D. 1899 A, pp. 34, 48. (Homacodontidæ, part.)

Roger, O. 1896 A, p. 198.

Steinmann and Döderlein 1890 A, p. 780.

Zittel, K. A. 1893 B, p. 324.

PANTOLESTES Cope. Type *P. longicaudus* Cope.

Cope, E. D. 1872 N, p. 466.

Ameghino, F. 1896 A, p. 444.

Cope, E. D. 1875 C, pp. 13, 15.

1875 L, p. 21.

1877 K, pp. 134, 145.

1882 E, p. 149.

1883 M, p. 547.

1884 H, pp. 21, 25.

1884 O, pp. 215, 717.

1885 B.

1886 C, p. 617.

Marsh, O. C. 1894 L, p. 263. (Homacodon, in part.)

Matthew, W. D. 1899 A, p. 48.

Osborn, H. F. 1893 D, p. 42.

Pavlow, M. 1900 A, p. 59.

Scott, W. B. 1890 A, p. 486.

1891 A, pp. 9, 45, 66.

1892 A, p. 433.

Schlosser, M. 1886 B, p. 39.

Trouessart, E. L. 1898 A, p. 800.

Wortman, J. L. 1898 A, pp. 101, 135.

Zittel, K. A. 1893 B, p. 324.

In many of the papers here cited this genus includes species which are here assigned to *Trigonolestes*. The systematic position of *Pantolestes longicaudus* is in doubt.

Pantolestes longicaudus Cope.

- Cope, E. D. 1872 N, p. 467.
 1873 E, p. 549. (Notharectus.)
 1873 U, p. 3. (Notharectus.)
 1882 E, p. 150.
 1883 W, p. 191.

- Cope, E. D. 1884 O, pp. 717, 725, pl. xxiv, figs. 13-17.
 1886 C, p. 617.
 Matthew, W. D. 1899 A, p. 48.
 Roger, O. 1896 A, p. 198.
 Trouessart, E. L. 1898 A, p. 800.
 Eocene (Bridger); Wyoming.

TRIGONOLESTES Cope. Type *Pantolestes brachystomus* Cope.

- Cope, E. D. 1894 E, p. 868.
 Ameghino, F. 1896 A, p. 444.
 Cope, E. D. 1897 B.
 Matthew, W. D. 1899 A, p. 34.
 Osborn and Earle 1895 A, p. 70.
 Scott, W. B. 1899 A, pp. 46, 62.

Trigonolestes brachystomus Cope.

- Cope, E. D. 1882 E, p. 187. (Mioclanus.)
 1882 K. (Mioclanus.)
 1883 M, p. 547. (Pantolestes.)
 1884 O, pp. 718, 721, pl. xxliid, figs. 16-21.
 (Pantolestes.)
 1886 C, p. 617, fig. 8. (Pantolestes.)
 1888 X, p. 1066, fig. 2. (Pantolestes.)
 1894 E, p. 868. (Trigonolestes.)

- Matthew, W. D. 1899 A, p. 34.
 Roger, O. 1896 A, p. 198.
 Schlosser, M. 1886 B, p. 135, pl. v, fig. 19; pl. vi, fig. 29. (Pantolestes.)
 Scott, W. B. 1891 A, p. 46. (Pantolestes.)
 1892 A, pp. 433, 438, fig. 8⁴. (Pantolestes.)
 Trouessart, E. L. 1898 A, p. 800.
 Zittel, K. A. 1893 B, p. 325, fig. 262. (Pantolestes.)
 Eocene (Wasatch); Wyoming.

Trigonolestes chacensis (Cope).

- Cope, E. D. 1875 C, p. 15. (Pantolestes.)
 1877 K, p. 146, pl. xiv, fig. 17. (Pantolestes.)
 1882 E, p. 150. (Pantolestes.)
 1884 O, pp. 717, 719, pl. xxivd, fig. 5. (Pantolestes.)

- Matthew, W. D. 1899 A, p. 34. (Trigonolestes.)
 Roger, O. 1896 A, p. 198. (Pantolestes.)
 Trouessart, E. L. 1898 A, p. 800. (Pantolestes.)
 Eocene (Wasatch); Wyoming.

Trigonolestes etsagicus (Cope).

- Cope, E. D. 1882 E, p. 189. (Mioclanus.)

- Cope, E. D. 1883 M, p. 547. (Pantolestes.)
 1884 O, pp. 717, 724, pl. xxv, fig. 21. (Pantolestes.)
 1886 C, p. 618. (Pantolestes.)
 Matthew, W. D. 1899 A, p. 34. (Trigonolestes.)
 Roger, O. 1896 A, p. 198.
 Trouessart, E. L. 1898 A, p. 800. (Pantolestes.)
 Wortman, J. L. 1898 A, p. 101, footnote. (Syn.? of *Eohyus distans*.)
 Eocene (Wasatch); Wyoming.

Trigonolestes metsiacus (Cope).

- Cope, E. D. 1882 E, p. 149. (Pantolestes.)
 1884 O, pp. 717, 719, pl. xxivd, fig. 6. (Pantolestes.)
 Matthew, W. D. 1899 A, p. 34. (Trigonolestes.)
 Roger, O. 1896 A, p. 199. (Pantolestes.)
 Trouessart, E. L. 1898 A, p. 800. (Pantolestes.)
 Eocene (Wasatch); Wyoming.

Trigonolestes nuptus Cope.

- Cope, E. D. 1882 E, p. 150. (Pantolestes.)
 1884 O, pp. 718, 720, pl. xxivd, fig. 7. (Pantolestes.)
 Matthew, W. D. 1899 A, p. 32. (Trigonolestes.)
 Roger, O. 1896 A, p. 199. (Pantolestes.)
 Trouessart, E. L. 1898 A, p. 800. (Pantolestes.)
 Eocene (Wasatch); Wyoming.

Trigonolestes secans Cope.

- Cope, E. D. 1881 D, p. 187. (Pantolestes.)
 1882 E, p. 150. (Pantolestes.)
 1884 O, pp. 717, 725, pl. xxva, fig. 6. (Pantolestes.)
 Matthew, W. D. 1899 A, p. 36. (Trigonolestes?)
 Roger, O. 1896 A, p. 199. (Pantolestes.)
 Trouessart, E. L. 1898 A, p. 800. (Pantolestes.)
 Eocene (Wind River); Wyoming, Colorado.

HOMACODONTIDÆ.

- Marsh, O. C. 1894 L, p. 268.
 Matthew, W. D. 1899 A, pp. 37, 48, part.

- Scott, W. B. 1899 A, p. 84.

HOMACODON Marsh. Type *H. ragans* Marsh.

- Marsh, O. C. 1872 G, p. 126.
 Ameghino, F. 1896 A, p. 444.
 Cope, E. D. 1873 E, p. 608.
 1894 E, p. 868.
 Flower and Lydekker 1891 A, p. 294.
 Marsh, O. C. 1877 E, p. 364.
 1894 L, p. 263.
 Pavlow, M. 1900 A, p. 59.
 Scott, W. B. 1890 A, pp. 485, 486.

- Scott, W. B. 1891 A, pp. 9, 46.
 1898 C, p. 81.
 1899 A, pp. 46, 65.
 Trouessart, E. L. 1898 A, p. 800. (Syn. of *Pantolestes*.)
 Woodward, A. S. 1898 B, p. 341.
 Wortman, J. L. 1898 A, pp. 94, 98, 101, 102, 135.
 Zittel, K. A. 1893 B, p. 361.

Homacodon priscus Marsh.

Marsh, O. C. 1894 L, p. 261, fig. 3.
 Roger, O. 1896 A, p. 199. (Pantolestes.)
 Trouessart, E. L. 1898 A, p. 800. (Pantolestes.)
 Eocene; Wyoming, New Mexico.

Homacodon pucillus Marsh.

Marsh, O. C. 1894 L, p. 261, fig. 4.
 Roger, O. 1896 A, p. 199. (Pantolestes.)
 Trouessart, E. L. 1898 A, p. 800. (Pantolestes.)
 Eocene; Wyoming, New Mexico.

Homacodon vagans Marsh.

Marsh, O. C. 1872 G, p. 126.
 Cope, E. D. 1894 E, p. 868.
 King, C. 1878 A, p. 404.
 Marsh, O. C. 1894 L, p. 262, figs. 5-8.
 Matthew, W. D. 1899 A, p. 48.
 Roger, O. 1896 A, p. 199. (Pantolestes.)
 Scott, W. B. 1891 A, p. 486.
 Trouessart, E. L. 1898 A, p. 800. (Pantolestes.)
 Woodward, A. S. 1898 A, p. 342, fig. 196.
 Eocene (Bridger); Wyoming.

NANOMERYX Marsh. Type *N. caudatus* Marsh.

Marsh, O. C. 1894 L, p. 263.

Nanomeryx caudatus Marsh.

Marsh, O. C. 1894 L, p. 263, figs. 9, 10.
 Cope, E. D. 1894 E, p. 868.

Matthew, W. D. 1899 A, p. 48.
 Roger, O. 1896 A, p. 199.
 Trouessart, E. L. 1898 A, p. 801.
 Eocene (Bridger); Wyoming.

BUNOMERYX Wort. Type not indicated; *B. elegans*, being figured, may be taken.

Wortman, J. L. 1898 A, p. 97.
 Scott, W. B. 1899 A, p. 84.

Bunomeryx elegans Wort.

Wortman, J. L. 1898 A, p. 100, fig. 2.
 Matthew, W. D. 1899 A, p. 50.
 Trouessart, E. L. 1899 A, p. 1348.
 Eocene (Uinta); Utah.

Bunomeryx montanus Wort.

Wortman, J. L. 1898 A, p. 97.
 Matthew, W. D. 1899 A, p. 50.
 Trouessart, E. L. 1899 A, p. 1348.
 Eocene (Uinta); Utah.

HELOHYIDÆ.

Marsh, O. C. 1877 E, p. 364.
 Cope, E. D. 1892 S, p. 411.
 Marsh, O. C. 1892 C, p. 362.

Matthew, W. D. 1899 A, p. 48. (Homacodontidæ,
 in part.)
 Scott, W. B. 1890 A, p. 485.

HELOHYUS Marsh. Type *H. plicodon* Marsh.

Marsh, O. C. 1872 I, p. 207.
 Cope, E. D. 1878 D, p. 3. ("Thinotherium," of Marsh.)
 1892 S, p. 411.
 1894 E, p. 868. (Syn. of Phenacodus.)
 Marsh, O. C. 1872 I, p. 208. (Thinotherium, type *T. validum*; not Thinotherium Cope, 1870.)
 1877 E.
 1892 C, p. 351.
 1894 L, p. 264.
 Schlosser, M. 1886 B, p. 12. (Syn. of Phenacodus.)
 Scott, W. B. 1889 C, p. 76.
 1890 A, pp. 486, 502.
 1890 B, p. 366.
 Wilckens, M. 1885 B, p. 308.
 Wortman, J. L. 1898 A, p. 94.
 Zittel, K. A. 1893 B, p. 220. (Thinotherium Marsh.)

Helohyus lentus Marsh.

Marsh, O. C. 1871 D, p. 39. (Elotherium.)
 Ledy, J. 1872 B, p. 365. (Elotherium.)
 1873 B, p. 124. (Elotherium.)

Marsh, O. C. 1878, in King, C. 1878 A, p. 404. (Helohyus.)
 1894 L, p. 265, fig. 16.
 Matthew, W. D. 1899 A, p. 48.
 Roger, O. 1896 A, p. 167. (Phenacodus.)
 Trouessart, E. L. 1898 A, p. 726. (Phenacodus.)
 Eocene (Bridger); Wyoming.

Helohyus plicodon Marsh.

Marsh, O. C. 1872 I, p. 207.
 1894 L, p. 264, figs. 11-14, 17.
 Matthew, W. D. 1899 A, p. 48.
 Roger, O. 1896 A, p. 166. (Phenacodus.)
 Scott, W. B. 1890 B, pl. xiv, fig. 14.
 Eocene (Bridger); Wyoming.

Helohyus validus Marsh.

Marsh, O. C. 1872 I, p. 208. (Thinotherium.)
 1894 L, p. 265, fig. 15.
 Matthew, W. D. 1899 A, p. 48.
 Roger, O. 1896 A, p. 166. (Phenacodus.)
 Eocene (Bridger); Wyoming.

EOHYIDÆ.

Marsh, O. C. 1894 L, p. 260.

| Cope, E. D. 1894 E, p. 867.

Eohyus Marsh. Type *E. distans* Marsh.

- Marsh, O. C. 1894 L, p. 259.
 Cope, E. D. 1894 E, p. 868.
 Marsh, O. C. 1877 E. (No description.)
 Matthew, W. D. 1899 A, p. 32, footnote.
 Wilckens, M. 1885 B, p. 303. (No description.)

***Eohyus distans* Marsh.**

- Marsh, O. C. 1894 L, p. 259, fig. 1.
 Matthew, W. D. 1899 A, p. 32.
 Roger, O. 1896 A, p. 199.

- Trouessart, E. L. 1898 A, p. 801.
 Wortman, J. L. 1896 A, p. 101, footnote.
 Eocene (Wasatch); New Mexico.

***Eohyus robustus* Marsh.**

- Marsh, O. C. 1894 L, p. 260.
 Matthew, W. D. 1899 A, p. 32.
 Roger, O. 1896 A, p. 199.
 Trouessart, E. L. 1898 A, p. 801.
 Eocene (Wasatch); New Mexico.

Superfamily ANTHRACOTHERIOIDEA Gill.

- Gill, T. 1872 B, pp. 11, 83.
 Cope, E. D. 1896 B, p. 130.

- Owen, R. 1848 A, p. 116. (Anthracotheria.)

ANTHRACOTHERIIDÆ.

- Blainville, H. M. D. 1864 A, iv, Y, p. 121, with plates.
 Branco, W. 1897 A, p. 23.
 Cope, E. D. 1884 H, p. 26. (Hyopotamidæ.)
 1885 B, p. 489. (Hyopotamidæ.)
 1888 X, pp. 1080, 1085.
 Flower and Lydekker 1891 A, p. 292.
 Gill, T. 1872 B, pp. 11, 83.
 Haeckel, E. 1895 A, p. 564. (Anthracotherida.)
 Kowalevsky, W. 1873 A. (Anthracotheridæ, Hyopotamidæ.)
 1874 A. (Hyopotamidæ.)
 Leidy, J. 1869 A, p. 202.
 1871 C, p. 355.
 Lydekker, R. 1888 A, p. 147.
 1885 C, p. 215.
 Marsh, O. C. 1894 F, p. 92.
 1894 K, p. 178. (Ancodontidæ.)

- Meyer, H. 1856 B, pp. 61-66.
 Nicholson and Lydekker 1889 A, p. 1324.
 Osborn and Wortman 1894 A, p. 219.
 Pavlow, M. 1900 A, p. 18.
 Pomel, A. 1848 B, p. 321. ("Les Anthracotheriums.")
 Roger, O. 1896 A, p. 199.
 Rüttimeyer, L. 1857 A. ("Anthracotherien.")
 Schlosser, M. 1886 A, p. 255.
 1886 B, p. 79.
 Scott, W. B. 1890 B, p. 392. (Hyopotamidæ.)
 Steinmann and Döderlein 1890 A, p. 792.
 Teller, F. 1884 A.
 Trouessart, E. L. 1898 A, p. 801.
 Woodward, H. 1898 B, p. 348.
 Wortman, J. L. 1896 A, p. 485.
 Zittel, K. A. 1893 B, p. 325.

ANTHRACOTHERIINÆ.

- Roger, O. 1896 A, p. 199.
 Trouessart, E. L. 1898 A, p. 801.

- Zittel, K. A. 1893 B, p. 327.

ANTHRACOTHERIUM Cuv. Type *A. magnum* Cuv.

- Cuvier, G. 1822, Oss. Foss., iii, p. 396.
 Bayle, E. 1855 A.
 Blainville, H. M. D. 1864 A, iv, Y, p. 121, pls. i-iii.
 Bronn, H. G. 1838 A, p. 1225; pl. xlv1, fig. 4.
 Cuvier, G. 1834 A, p. 464, pl. 161.
 Filhol, H. 1891 B, p. 89.
 Flores, E. 1897 A, p. 92.
 Gaudry, A. 1878 B, pp. 42, 94.
 Gervais, P. 1869 A, p. 189.
 Hoernes, R. 1875 A.
 1876 A.
 1877 A.
 Kowalevsky, W. 1873 A.
 Lydekker, R. 1888 A, p. 148.
 1885 C, p. 235.
 Marsh, O. C. 1894 C, p. 409. (Heptacodon, type *H. curtus*.)
 1894 F, p. 92. (Heptacodon.)
 1894 K, p. 178. (Heptacodon.)

- Meyer, H. 1834 A, p. 59.
 1854 A.
 Nicholson and Lydekker 1889 A, p. 1324.
 Osborn and Wortman 1894 A, p. 222.
 Owen, R. 1845 B, p. 567.
 1848 A, p. 109.
 Pavlow, M. 1900 A, p. 21.
 Pictet, F. J. 1853 A, p. 332.
 Pomel, A. 1847 A, pp. 203, 207.
 1847 C, p. 381.
 1848 B, p. 324.
 1853 A, p. 89.
 Renevier, E. 1879 A.
 Rüttimeyer, L. 1857 A.
 1857 B.
 1857 C.
 Teller, F. 1884 A.
 Woodward, A. S. 1898 B, p. 348.
 Zittel, K. A. 1893 B, p. 327.

Anthracotherium curtum (Mar. h.)*Marsh, O. C.* 1894 C, p. 409. (Heptacodon.)

1894 K, p. 176, fig. 1. (Heptacodon.)

Matthew, W. D. 1899 A, p. 58.

Osborn and Wortman 1894 A, p. 221, figs. 6, 7 (A. curtum?); p. 223 (A. occidentale).

Roger, O. 1896 A, p. 200. (A. curtum, A. occidentale.)

Trouessart, E. L. 1898 A, p. 803. (A. curtum, A. occidentale.)

Oligocene (White River); South Dakota.

Anthracotherium gibbiceps (Marsh.)*Marsh, O. C.* 1894 K, p. 175, fig. 2. (Heptacodon.)

Matthew, W. D. 1899 A, p. 59.

Roger, O. 1896 A, p. 201.

Trouessart, E. L. 1898 A, p. 803.

Oligocene (White River); South Dakota?.

Anthracotherium karense Osb. and Wort.*Osborn and Wortman* 1894 A, p. 222, fig. 8.

Matthew, W. D. 1899 A, p. 59.

Roger, O. 1896 A, p. 200.

Trouessart, E. L. 1898 A, p. 803.

Oligocene (White River); South Dakota.

OCTACODON Marsh. Type *O. valens* Marsh.*Marsh, O. C.* 1894 F, p. 92.

1894 K, p. 178.

Trouessart, E. L. 1898 A, p. 801. (Syn. of Anthracotherium.)

Octacodon valens Marsh.*Marsh, O. C.* 1894 F, p. 92, fig. 1.

1894 K, p. 178, fig. 6. -

Matthew, W. D. 1899 A, p. 59. (Syn. of Anthracotherium karense.)

Roger, O. 1896 A, p. 201. (Anthracotherium.)

Trouessart, E. L. 1898 A, p. 103. (Anthracotherium.)

Oligocene (White River); South Dakota.

ELOMERYX Marsh. Type *Heptacodon armatus* Marsh.*Marsh, O. C.* 1894 K, p. 176.**Elomeryx armatus** Marsh.*Marsh, O. C.* 1894 F, p. 93, fig. 2. (Heptacodon.)

1894 K, p. 176, figs. 3, 4.

Matthew, W. D. 1899 A, p. 59. (Syn. of Anthracotherium karense.)

Roger, O. 1896 A, p. 201.

Trouessart, E. L. 1898 A, p. 804.

Oligocene (White River); South Dakota.

Elomeryx mitis Marsh.*Marsh, O. C.* 1894 K, p. 177, fig. 5.

Matthew, W. D. 1899 A, p. 59. (Anthracotherium.)

Roger, O. 1896 A, p. 201.

Trouessart, E. L. 1898 A, p. 804.

Oligocene (White River); South Dakota?.

ANCODON Pomel. Type *A. relaunum* Pomel.*Pomel A.*, 1847, Arch. Sci. Phys. et Nat., Genève, v, p. 207.Unless otherwise indicated, the following authors use the name *Hyopotamus* for this genus. *Ancodon* antedates it. *Ancodon* was afterwards emended into *Ancodus*.Aymard, A., 1848, Ann. Soc. Agri. et Sci., du Puy, xii. (Bothriodon, type *B. platyrhynchus*.)

Cope, E. D. 1887 A, p. 383.

1888 X, p. 1086.

1889 C, p. 163.

Filhol, H. 1882 A, p. 85. (Ancodus.)

Gaudry, A. 1878 B, p. 94.

Gervais, P. 1859 A, p. 191.

Kowalevsky, W. 1874 A.

Leidy, J. 1869 A, p. 202.

1871 C, p. 355.

Lydekker, R. 1883 A, p. 154.

1885 A, p. 218.

Major, Fors. 1873 A, p. 101.

Marsh, O. C. 1894 K, p. 178. (Ancodus.)

Nicholson and Lydekker 1889 A, p. 1325.

Owen, R. 1848 A, p. 104. (Hyopotamus, type *H. bovinus*.)

Pavlov, M. 1900 A, p. 19.

Pomel, A. 1848 B, p. 322. (Ancodus.)

1853 A, p. 91. (Ancodus.)

Rütimeyer, L. 1891 A, p. 56.

Schlosser, M. 1886 B, p. 79.

Scott, W. B. 1890 A, p. 488,

1894 C.

1894 D. (Ancodus.)

1894 E. (Ancodus.)

Steinmann and Döderlein 1890 A, p. 794.

Trouessart, E. L. 1898 A, p. 804.

Woodward, A. S. 1898 B, p. 349.

Wortman, J. L. 1893 A.

Zittel, K. A. 1893 B, p. 329. (Ancodus.)

Ancodon americanus (Leidy).*Leidy, J.* 1856 D, p. 59. (Hyopotamus.)

Hayden, F. V. 1858 B, p. 157. [Cheropotamus (Hyopotamus).]

King, C. 1878 A, p. 411. (Hyopotamus.)

Leidy, J. 1856 B, p. 422. (Hyopotamus.)

1857 C, p. 89. [Cheropotamus (Hyopotamus).]

1869 A, pp. 202, 389, pl. xxi, figs. 1-6. (Hyopotamus.)

1871 C, p. 355. (Hyopotamus.)

Marsh, O. C. 1890 D, p. 524. (*Hyopotamus deflectus*.)

1894 K, p. 178, fig. 7. (*Ancodus deflectus*.)

Matthew, W. D. 1899 A, p. 59. (*Hyopotamus americanus*, H. *deflectus*.)

Osborn and Wortman 1894 A, p. 219, fig. 6, A. (*Hyopotamus*.)

Roger, O. 1896 A, p. 202. (*Hyopotamus americanus*, H. *deflectus*.)

Scott, W. B. 1894 E, p. 461, pl. xxxiii, figs. 2, 3 (*Ancodus americanus*); p. 461 (A. *deflectus*).

Trouessart, E. L. 1898 A, p. 806. (*Hyopotamus americanus*, H. *deflectus*.)

Oligocene (White River); South Dakota.

An examination of the type of Professor Marsh's *Hyopotamus deflectus* shows that the character on which the species was based holds good on only one side.

***Ancodon brachyrhynchus* (Osb. and Wort.).**

Osborn and Wortman 1894 A, p. 220, fig. 6 B. (*Hyopotamus*.)

Matthew, W. D. 1899 A, p. 59. (*Hyopotamus*.)

Roger, O. 1896 A, p. 202. (*Hyopotamus*.)

Scott, W. B. 1894 D, p. 492. (*Ancodus*.)

1894 E, pl. xxiii, fig. 1; pl. xxiv, figs. 5-8. (*Ancodus*.)

Trouessart, E. L. 1898 A, p. 806. (*Hyopotamus*.)

Woodward, A. S. 1898 B, p. 350, fig. 200. (*Hyopotamus*.)

Oligocene (White River); South Dakota.

***Ancodon rostratus* Scott.**

Scott, W. B. 1894 E, appendix, p. 536. (*Ancodus*.)

Oligocene (White River); South Dakota.

Superfamily SUOIDEA.

Cope, E. D. 1885 B, p. 482. (*Bunodonta*.)

1887 B, p. 378. (*Bunodonta*.)

1896 B, p. 130.

Flower, W. H. 1873 A. (*Suina*.)

1874 A. (*Suina*.)

1876 B, xlii, p. 328. (*Suina*.)

1883 D, p. 430. (*Bunodonta*.)

1885 A. (*Suina*.)

Flower and Lydekker 1891 A, p. 278. (*Suina*.)

Gray, J. E. 1868 A, p. 22. (*Suina*.)

1869 A, p. 238. (*Suina*.)

Kowalevsky, W. 1873 A, p. 152. (*Bunodonta*, in part.)

Lydekker, R. 1883 A. (*Suina*, *Bunodontia*, in part.)

1884 C. (*Suina*, *Bunodontia*, in part.)

Marsh, O. C. 1877 E. (*Bunodonta*.)

Tomes, C. S. 1896 A, p. 392. (*Suina*.)

SUIDÆ.

Baur, G. 1884 F, p. 596.

Blainville, H. M. D. 1864 A, iv, AA, p. 106.

Branco, W. 1897 A, p. 23.

Cope, E. D. 1887 B, pp. 378, 384.

1888 X, pp. 1080, 1090.

Cope and Wortman 1884 A, p. 16.

Coues, E. 1878 A.

Cuvier, G. 1834 A, p. 221 *et seq.*, with plates.

Flower, W. H. 1873 A.

Flower and Lydekker 1891 A, p. 281.

Garrod, A. H. 1877 A.

Gray, J. E. 1868 A.

1869 A, p. 327.

Haeckel, E. 1895 A, p. 555. (*Suida*.)

Huxley, T. H. 1870 A, p. 440.

1872 A, p. 313.

Ledy, J. 1871 C, p. 352.

Lydekker, R. 1884 C, p. 49.

1885 C, p. 250.

Nicholson and Lydekker 1889 A, p. 1318.

Osborn, H. F. 1883 A, p. 34.

Owen, R. 1845 B, p. 543.

Parker, W. K. 1874 B.

Roger, O. 1896 A, p. 202.

Rütimeyer, L. 1857 B. ("Schweine.")

1862 B. ("Schweine.")

Schlosser, M. 1886 A, p. 255.

1886 B, p. 82.

1890 C, p. 273.

Schmidt, O. 1886 A, p. 137.

Slade, D. D. 1893 A.

Smith, J. 1895 A, p. 340.

Stehlin, H. G. 1899 A.

Steinmann and Döderlein 1890 A, p. 794.

Taeker, J. 1892 A.

Trouessart, E. L. 1898 A, p. 808.

Turner, H. N. 1848 A.

Weyhe, — 1875 A, p. 120.

Wilckens, M. 1885 B.

Woodward, A. S. 1898 B, p. 341.

Zittel, K. A. 1893 B, p. 331.

ACHÆNODONTINÆ.

Cope, E. D. 1887 B, p. 378. (*Elotheriidae*.)

1888 X, p. 1089. (*Elotheriinae*.)

Marsh, O. C. 1893 D, p. 410. (*Elotheriidae*.)

1894 B, p. 408. (*Elotheriidae*.)

1894 H. (*Elotheriidae*.)

Osborn, H. F. 1893 D, p. 41. (*Elotheriidae*.)

Roger, O. 1896 A, p. 208.

Stehlin, H. G. 1899 A, p. 123. ("Elotherien.")

Trouessart, E. L. 1898 A, p. 808. (*Achænodontinae*.)

Zittel, K. A. 1893 B, p. 334. (*Achænodontinae*.)

Possibly the subfamily name *Elotheriinae* has priority.

ACHÆNODON Cope. Type *A. insolens* Cope.

- Cope, E. D. 1873 D, p. 2.
 Ameghino, F. 1896 A, p. 144.
 Cope, E. D. 1874 B, p. 457.
 1883 I, p. 77.
 1883 II, p. 969.
 1884 O, pp. 259, 342, 738.
 1884 Z, p. 718.
 1885 K, p. 469.
 1887 S, p. 261.
 Lydekker, R. 1885 E, p. 470.
 Nicholson and Lydekker 1889 A, p. 1323.
 Osborn, H. F. 1883 A, p. 26.
 Schlosser, M. 1885 A, p. 694.
 1886 B, p. 39.
 1887 B, p. 220.
 Zittel, K. A. 1893 B, p. 234.

Achænodon insolens Cope.

- Cope, E. D. 1873 D, p. 2.
 1874 B, pp. 457, 463.

- Cope, E. D. 1874 M, p. 78, fig. 5.
 1882 JJ, p. 534.
 1884 O, p. 343, pls. lviii, lviii.
 1885 K, p. 470, fig. 17.
 Matthew, W. D. 1899 A, pp. 48, 50.
 Osborn, H. F. 1883 A, p. 24.
 1895 A, p. 105.
 Roger, O. 1896 A, p. 208.
 Trouessart, E. L. 1898 A, p. 806.
 Eocene (Bridger); Wyoming: (Uinta); Utah.

Achænodon robustus Osb.

- Osborn, H. F. 1883 A, p. 24, pl. vi.
 Cope, E. D. 1885 K, p. 471, fig. 18.
 Matthew, W. D. 1899 A, p. 48.
 Osborn, H. F. 1895 A, p. 103.
 Roger, O. 1896 A, p. 208.
 Trouessart, E. L. 1898 A, p. 808.
 Zittel, K. A. 1893 B, p. 335, fig. 270.
 Eocene (Bridger); Wyoming.

PARAHYUS Marsh. Type *P. vagus* Marsh.

- Marsh, O. C. 1876 H, p. 402.
 Cope, E. D. 1894 E, p. 868.
 Marsh, O. C. 1877 E.
 Nicholson and Lydekker 1889 A, p. 1323.
 Osborn, H. F. 1883 A, pp. 23, 24.
 1893 D, p. 41.
 Trouessart, E. L. 1898 A, p. 806. (Syn. of Achænodon.)
 Wilckens, M. 1885 B, p. 305.
 Zittel, K. A. 1893 B, p. 334. (Syn. of Achænodon.)

Parahyus aberrans Marsh.

- Marsh, O. C. 1894 L, p. 261, fig. 2.
 Matthew, W. D. 1899 A, p. 34.
 Roger, O. 1896 A, p. 203. (Achænodon.)

- Trouessart, E. L. 1898 A, p. 806. (Achænodon.)
 Eocene (Bridger); Wyoming.

Parahyus vagus Marsh.

- Marsh, O. C. 1876 H, p. 402.
 King, C. 1878 A, p. 377. (*P. vagans*.)
 Matthew, W. D. 1899 A, p. 34.
 Osborn, H. F. 1883 A, p. 24 [Achænodon (Parahyus).]
 Roger, O. 1896 A, p. 203. (Achænodon.)
 Scott, W. B. 1898 A, p. 323. (Achænodon.)
 Trouessart, E. L. 1898 A, p. 806. (Achænodon.)
 Wilckens, M. 1885 B, p. 305.
 Eocene (Bridger); Wyoming.

PROTELOTHERIUM Osb. Type *Elothierium uintense* Osb.

- Osborn, H. F. 1895 A, p. 105.
Protelotherium uintense Osb.
 Osborn, H. F. 1895 A, p. 102, figs. 16, 17 (Elothierium); p. 106 (Protelotherium).

- Matthew, W. D. 1899 A, p. 50.
 Roger, O. 1896 A, p. 203. (Elothierium.)
 Scott, W. B. 1898 A, p. 323. (Achænodon.)
 Trouessart, E. L. 1898 A, p. 808.
 Eocene (Uinta); Utah.

ELOTHERIUM Pomel. Type *E. magnum* Pomel.

- Pomel, A. 1847 B, p. 307.
 Aymard, A., 1848, Sci. et Bell. Lett. du Puy, xii, p. 240. (Entelodon.)
 Cope, E. D. 1874 B, p. 504. (Pelonax, type *P. ramosus*.)
 1879 B, p. 59. (Boëchærus, type *B. humerosus*.)
 1884 H, p. 22.
 1885 B, p. 483.
 1888 X, p. 1088.
 1889 C. (Elothierium, Boëchærus.)
 Filhol, H. 1882 A, p. 190.
 Flower, W. H. 1873 A.
 Flower and Lydekker 1891 A, p. 292.
 Gaudry, A. 1877 A. (Entelodon.)
 1878 B, p. 92. (Entelodon.)

- Gervais, P. 1859 A, p. 194. (Entelodon.)
 Greene, F. V. 1853 A. (Archæotherium.)
 Grinnell and Dana 1876 A.
 Hoernes, R. 1892 A. (Entelodon.)
 Kowalevsky, W. 1873 A, p. 258. (Entelodon.)
 1876 A, p. 415. (Entelodon.)
 Leidy, J. 1850 A, p. 90. (Archæotherium, type *A. mortoni* Leidy.)
 1851 J. (Arctodon.)
 1852 J, p. 558. (Archæotherium.)
 1852 L, p. 64. (Archæotherium.)
 1854 A, pp. 57, 114. (Archæotherium.)
 1869 A, pp. 174, 388.
 1871 C, p. 858.
 Lydekker, R. 1885 C, p. 249.
 1896 B, p. 161.

- Marsh, O. C. 1877 E.
1894 B, pl. ix.
1894 H.
Nicholson and Lydekker 1889 A, p. 1323.
Osborn, H. F. 1883 A, p. 23. (Entelodon.)
Pictet, F. J. 1853 A, p. 328.
Pomel, A., 1847, Bull. Soc. Géol. France, iv, p. 1083.
1848 B, p. 325.
1853 A, p. 88.
Schlosser, M. 1886 B, p. 80. (Entelodon.)
Scott, W. B. 1884 B.
1896 A.
1896 A.
Stehlin, H. G. 1899 A, pp. 121, 122.
Steinmann and Döderlein 1890 A, p. 798. (Entelodon.)
Trouessart, E. L. 1898 A, p. 808.
Wilckens, M. 1885 B, pp. 210, 216, 217.
Woodward, A. S. 1898 B, p. 343.
Zittel, K. A. 1893 B, p. 335 (Elotherium); p. 337 (Boöcherus).

Elotherium clavum Marsh.

- Marsh, O. C. 1893 D, p. 409, pl. ix, fig. 1.
1897 C, p. 523, fig. 97. (Entelodon.)
Matthew, W. D. 1899 A, p. 59.
Roger, O. 1896 A, p. 204.
Trouessart, E. L. 1898 A, p. 810.
Oligocene (White River); South Dakota?, Colorado.

Elotherium coarctatum Cope.

- Cope, E. D. 1889 O, p. 629.
1886 U, p. 84. (E. mortoni.)
1891 A, p. 20, pl. xiv, fig. 3. (E. arctatum.)
Matthew, W. D. 1899 A, p. 59. (E. arctatum.)
Roger, O. 1896 A, p. 204. (E. arctatum.)
Oligocene (White River); Northwest Territory, Canada.

Elotherium crassum Marsh.

- Marsh, O. C. 1873 H, p. 487,
Cope, E. D. 1874 B, p. 604. (Pelonax?).
King, C. 1878 A, p. 411.
L. P. B. 1885 A, p. 193, fig. 27.
Lydekker, R. 1896 B, p. 162, fig. 35.
Marsh, O. C. 1884 F, fig. 75.
1886 B, fig. 108.
1893 D, p. 408, pl. viii.
1894 B, pl. ix.
1894 H, pl. x.
1897 C, pl. xxx. (Entelodon.)
Matthew, W. D. 1899 A, p. 59.
Roger, O. 1896 A, p. 204.
Stehlin, H. G. 1899 A, p. 123.
Trouessart, E. L. 1898 A, p. 809.
Woodward, A. S. 1898 B, p. 344, fig. 197.
Zittel, K. A. 1893 B, p. 337, fig. 373.
Oligocene (White River); South Dakota, Colorado.

Elotherium humerosum (Cope).

- Cope, E. D. 1879 B, p. 59. (Boöcherus.)
1879 H, p. 131. (Boöcherus.)
Matthew, W. D. 1899 A, p. 64. (Boöcherus.)
Roger, O. 1896 A, p. 204. (Boöcherus.)
Trouessart, E. L. 1898 A, p. 810. (Boöcherus.)

- Wortman, J. L. 1898 A, p. 120, footnote.
Miocene (John Day); Oregon.
Probably identical with *E. imperator*.

Elotherium imperator Leidy.

- Leidy, J. 1873 B, pp. 217, 320 (E. imperator); pl. ii, figs. 3, 4 (E. superbum); pl. vii, fig. 2 (E. imperator).
Cope, E. D. 1874 B, p. 505. (E. superbum.)
1879 B, p. 58.
1888 X, p. 1090.
Leidy, J. 1870 P, p. 112. (E. superbum.)
Matthew, W. D. 1899 A, p. 63.
Scott, W. B. 1898 A.
Trouessart, E. L. 1898 A, p. 809. (Syn. of E. superbum.)
Miocene (John Day); Oregon.

Elotherium ingens Leidy.

- Leidy, J. 1856 J, p. 164. (Entelodon.)
1857 D, p. 175. (Elotherium.)
1858 B, p. 157. (Entelodon.)
1869 A, pp. 192, 388, pl. xxvii, figs. 8-11.
1870 P, p. 112.
1871 C, p. 353.
1873 B, p. 320.
Matthew, W. D. 1899 A, p. 59.
Scott, W. B. 1896 A.
1898 A, pl. xvii; pl. xviii, figs. 3-12.
Trouessart, E. L. 1898 A, p. 809. (Syn. of E. robustum.)
Oligocene (White River); South Dakota.

Elotherium mortoni Leidy.

- Leidy, J. 1850 A, p. 90. (Archæotherium.)
Ami, H. M. 1891 A.
Cope, E. D. 1885 H. (Entelodon.)
1886 U, p. 84.
1888 X, p. 1089.
1889 I, p. 155.
Dawkins, W. B. 1870 A. (Archæotherium.)
Greene, F. V. 1853 A, p. 66. ("Archæotherium.")
Hayden, F. V. 1858 B, p. 157.
Hoernes, R. 1892 A. (Entelodon.)
King, C. 1878 A, p. 411.
Leidy, J. 1851 J, p. 278. ("Arctodon.")
1852 J, p. 558, pl. x, figs. 1-3; pl. xi, fig. 1 (Archæotherium mortoni); p. 572 (A. robustum).
1852 L, p. 64 (Archæotherium mortoni); p. 65 (Arctodon vetustum).
1853 D, p. 392. (Entelodon.)
1854 A, pp. 57, 114, pls. viii, ix; pl. x, figs. 1-7 (Archæotherium mortoni); pp. 66, 114, pl. x, figs. 8-13 (A. robustum).
1854 E, p. 157. (Entelodon.)
1857 D, p. 175.
1869 A, pp. 175, 388, pl. xvi.
1871 C, p. 353.
1873 B, pp. 125, 320, pl. vii, figs. 28, 29.
Matthew, W. D. 1899 A, p. 59.
Roger, O. 1896 A, p. 204. (E. mortoni, E. robustum.)
Scott, W. B., 1898 A, pl. xviii, figs. 1, 2.
Scott and Osborn 1887 B, p. 156. (Entelodon.)
Trouessart, E. L. 1898 A, p. 809.
Wortman, J. L. 1893 A, p. 97.

Zittel, K. A. 1893 B, p. 336, fig. 271.

Oligocene (White River); South Dakota, Nebraska, Colorado.

Elotherium ramosum Cope.

Cope, E. D. 1874 P, p. 27.

1874 B, pp. 463, 504. (Pelonax.)

1883 F, p. 217.

1888 X, p. 1089.

Matthew, W. D. 1899 A, p. 59.

Osborn, H. F. 1896 C, pp. 713, 715, illus. 9.

1898 Q, p. 16.

Roger, O. 1896 A, p. 204.

Trouessart, E. L. 1898 A, p. 809.

Oligocene (White River); Colorado, North Dakota.

Elotherium superbum Leidy.

Leidy, J. 1868 B.

Cope, E. D. 1874 B, p. 506.

Dana, J. D. 1879 A, p. 233.

King, C. 1878 A, p. 411.

Leidy, J. 1869 A, p. 388.

1871 C, p. 358.

Roger, O. 1896 A, p. 204.

Trouessart, E. L. 1898 A, p. 809.

Whitney, J. D. 1879 A, p. 244.

Miocene; California.

AMMODON Marsh. Type *A. leidyianum* Marsh.

Marsh, O. C. 1893 D, p. 409.

Trouessart, E. L. 1898 A, p. 808. (Syn. of *Elotherium*.)

Ammodon bathrodon Marsh.

Marsh, O. C. 1874 C, p. 534. (Elotherium.)

King, C. 1878 A, p. 411. (Elotherium.)

Marsh, O. C. 1893 D, p. 410, pl. ix, fig. 4.

Matthew, W. D. 1899 A, p. 59. (Elotherium.)

Roger, O. 1896 A, p. 204. (Elotherium.)

Trouessart, E. L. 1898 A, p. 808. (Elotherium.)

Oligocene (White River); South Dakota?

Ammodon leidyianus Marsh.

Marsh, O. C. 1893 D, p. 409, pl. ix.

Cope, E. D. 1869 N, p. 740. (Elotherium.)

Leidy, J. 1869 A, p. 388. (Elotherium.)

Marsh, O. C. 1871 F, p. 10. (Elotherium; no description.)

1874 C, p. 534. (Elotherium; no description.)

Roger, O. 1896 A, p. 204. (Elotherium.)

Oligocene (White River); Colorado?

Trouessart, E. L. 1898 A, p. 808. (Elotherium.)

Miocene; New Jersey.

Not any of the literature of this species previous to 1893 contains an adequate description.

Ammodon potens Marsh.

Marsh, O. C. 1893 D, p. 410.

1897 C, p. 527.

Matthew, W. D. 1899 A, p. 59. (Elotherium.)

Roger, O. 1896 A, p. 204. (Elotherium.)

Trouessart, E. L. 1898 A, p. 808. (Elotherium.)

HYOTHERIINÆ.

Cope, E. D. 1894 E, p. 869. (Leptochæridæ.)

Marsh, O. C. 1894 L, p. 273. (Leptochæridæ.)

Roger, O. 1896 A, p. 204.

Trouessart, E. L. 1898 A, p. 810.

Zittel, K. A. 1893 B, p. 337.

HYOTHERIUM Meyer. Type *H. sömmeringii* Meyer.

Meyer, H. 1834 A, p. 43.

Bronn, H. G. 1838 A, p. 1222, pl. xlv, fig. 7.

Cope and Wortman, 1884 A, p. 17.

Filhol, A. 1881 A.

1891 A, p. 207.

Gaudry, A. 1878 B, p. 70.

Gervais, P. 1859 A, p. 181.

Lydekker, R. 1884 C, p. 91.

1885 C, p. 253.

Meyer, H. 1841 A.

Peters, K. 1869 B.

Pictet, F. J. 1853 A, p. 333.

Stehlin, H. G. 1899 A, pp. 44, 135, 235, 313.

Wilckens, M. 1885 B, p. 337.

Woodward, A. S. 1898 B, p. 343.

Zittel, K. A. 1893 B, p. 341.

Hyotherium americanum Scott and Osb.

Scott and Osborn 1887 B, p. 155.

Cope, E. D. 1888 E, p. 66.

Matthew, W. D. 1899 A, p. 60. (Bothrolabis.)

Roger, O. 1896 A, p. 207. (Bothrolabis.)

Stehlin, H. G. 1899 A, p. 113.

Trouessart, E. L. 1898 A, p. 815. (Bothrolabis.)

Oligocene (White River); South Dakota?

Hyotherium platyps Cope.

Cope, E. D. 1881 C, p. 174.

Lydekker, R. 1884 C, p. 93.

Matthew, W. D. 1899 A, p. 60. [Bothrolabis (Palæochærus).]

Roger, O. 1896 A, p. 207. (Bothrolabis.)

Trouessart, E. L. 1898 A, p. 815. (Bothrolabis.)

Oligocene (White River); South Dakota.

PERCHÆRUS Leidy. Type *Palæochærus probus* Leidy.

Leidy, J. 1869 A, p. 194.

Cope, E. D. 1879 A, p. 44. (Thinohyus.)

1879 E, p. 374. (Thinohyus.)

1884 O, p. 37. (Thinohyus.)

1887 B, p. 384. (Thinohyus.)

1888 E, p. 62. (Thinohyus.)

1894 E, p. 869. (Thinohyus.)

Cope and Wortman 1884 A, p. 17. (Thinohyus.)

Leidy, J. 1871 C, p. 353.

Marsh, O. C. 1875 B, p. 248. (Thinohyus type *T. lentus* Marsh.)

1877 E. (Perchærus, Thinohyus.)

1894 L, p. 271.

Nicholson and Lydekker 1889 A, p. 1322. (Perchærus, Thinohyus.)

Schlosser, M. 1886 B, p. 88.

Scott, W. B. 1892 A, p. 438. (Perchærus, Thinohyus.)

Stehlin, H. G. 1899 A, p. 112. (Perchærus); p. 113 (Thinohyus.)

Wilckens, M. 1885 B, p. 304.

Zittel, K. A. 1893 B, p. 342. (Perchærus, Thinohyus.)

Perchærus antiquus Marsh.

Marsh, O. C. 1893 D, p. 411, pl. x, fig. 1. [Perchærus (Dicotyles).]

1870 I, p. 11. (Dicotyles antiquus; no description.)

1894 L, p. 271, fig. 28. (Thinohyus.)

Matthew, W. D. 1899 A, p. 60. (Perchærus.)

Roger, O. 1896 A, p. 207. (Thinohyus.)

Stehlin, H. G. 1899 A, p. 114. (Thinohyus.)

Trouessart, E. L. 1898 A, p. 815 (Perchærus); p. 816 (Thinohyus.)

Miocene; New Jersey.

Perchærus lentus (Marsh).

Marsh, O. C. 1875 B, p. 248 (Thinohyus.)

Cope, E. D. 1879 E, p. 375 (Thinohyus.)

King, C. 1871 A, p. 424. (Thinohyus.)

Marsh, O. C. 1894 L, p. 271, fig. 26. (Thinohyus.)

Matthew, W. D. 1899 A, p. 64. (Thinohyus.)

Roger, O. 1896 A, p. 207. (Thinohyus.)

Scott, W. B. 1892 A, p. 438, fig. 8^a. (Thinohyus.)

Stehlin, H. G. 1899 A, p. 114 (Thinohyus); p. 193. (Thinohyus.)

Trouessart, E. L. 1898 A, p. 815. (Thinohyus.)

Miocene (John Day); Oregon.

Perchærus nanus (Marsh).

Marsh, O. C. 1894 L, p. 271, fig. 28. (Thinohyus.)

Matthew, W. D. 1899 A, p. 60. (Thinohyus.)

Roger, O. 1896 A, p. 207. (Thinohyus.)

Stehlin, H. G. 1899 A, p. 113 (Thinohyus); pp. 193, 273.

Trouessart, E. L. 1898 A, p. 816. (Thinohyus.)

Oligocene (White River); South Dakota.

Perchærus probus Leidy.

Leidy, J. 1856 J, p. 165. (Palæochærus.)

Hayden, F. V. 1858 B, p. 157. (Palæochærus.)

King, C. 1878 A, p. 411.

Leidy, J. 1869 A, pp. 194, 389, pl. xxi, figs. 20-27.

1871 C, p. 353.

Matthew, W. D. 1899 A, p. 60.

Roger, O. 1896 A, p. 207.

Scott, W. B. 1892 A, p. 438, fig. 8^a.

Stehlin, H. G. 1899 A, pp. 112, 193.

Wilckens, M. 1885 B, p. 305.

Oligocene (White River); South Dakota.

Perchærus robustus (Marsh).

Marsh, O. C. 1894 F, p. 94. (Thinohyus.)

Matthew, W. D. 1899 A, p. 60. (Thinohyus.)

Stehlin, H. G. 1899 A, p. 114 (Thinohyus); p. 193

Trouessart, E. L. 1898 A, p. 816. (Thinohyus.)

Oligocene (White River); South Dakota.

Perchærus socialis (Marsh).

Marsh, O. C. 1875 B, p. 249. (Thinohyus.)

Cope, E. D. 1879 B, p. 58. (Palæochærus.)

King, C. 1878 A, p. 424. (Thinohyus.)

Marsh, O. C. 1894 L, p. 271, fig. 25. (Thinohyus.)

Matthew, W. D. 1899 A, p. 64. (Thinohyus.)

Stehlin, H. G. 1899 A, p. 113. (Thinohyus.)

Trouessart, E. L. 1898 A, p. 816. (Thinohyus.)

Miocene (John Day); Oregon.

LEPTOCHÆRUS Leidy. Type *L. spectabilis* Leidy.

Leidy, J. 1856 I, p. 88.

Cope, E. D. 1894 E, p. 869.

Leidy, J. 1869 A, p. 197.

1871 C, p. 354.

Nicholson and Lydekker 1889 A, p. 1323.

Schlosser, M. 1886 B, p. 85.

Scott, W. B. 1891 A, p. 46.

Zittel, K. A. 1893 B, p. 341.

Leptochoærus gracilis Marsh.

Marsh, O. C. 1894 L, p. 272, figs. 29, 30.

Matthew, W. D. 1899 A, p. 60.

Roger, O. 1896 A, p. 206.

Oligocene (White River); South Dakota.

Leptochoærus spectabilis Leidy.

Leidy, J. 1856 I, p. 88.

Hayden, F. V. 1858 B, p. 157.

King, C. 1878 A, p. 411.

Leidy, J. 1869 A, pp. 197, 389, pl. xxi, figs. 14-19.

1871 C, p. 354.

Matthew, W. D. 1899 A, p. 59.

Roger, O. 1896 A, p. 206.

Trouessart, E. L. 1898 A, p. 814.

Wilckens, M. 1885 B, p. 305.

Oligocene (White River); South Dakota.

NANOHYUS Leidy. Type *N. porcinus* Leidy.

Leidy, J. 1869 B, p. 65.

1869 A, p. 200.

1871 C, p. 354.

Scott, W. B. 1892 A, p. 441.

Stehlin, H. G. 1899 A, p. 221.

Nanohyus porcinus Leidy.

Leidy, J. 1869 B, p. 65.

1869 A, pp. 200, 389, pl. xxix, figs. 11, 12.

Leidy, J. 1871 C, p. 354.

Matthew, W. D. 1899 A, p. 60.

Roger, O. 1896 A, p. 207.

Stehlin, H. G. 1899 A, p. 113.

Trouessart, E. L. 1898 A, p. 815.

Wilckens, M. 1885 B, p. 306.

Oligocene (White River); South Dakota?.

CHÆNOHYUS Cope. Type *C. decedens* Cope.

Cope, E. D. 1879 E, p. 373.

1887 B, p. 384.

1888 E, p. 63.

1888 X, p. 1088.

Cope and Wortman 1884 A, p. 17.

Flower and Lydekker 1896 A, p. 291.

Nicholson and Lydekker 1899 A, p. 1321.

Stehlin, H. G. 1899 A, pp. 113, 193.

Zittel, K. A. 1893 B, p. 342.

Chænohyus decedens Cope.

Cope, E. D. 1879 E, p. 373.

1888 E, p. 63.

Matthew, W. D. 1899 A, p. 64.

Roger, O. 1896 A, p. 207.

Stehlin, H. G. 1899 A, pp. 114, 193.

Trouessart, E. L. 1898 A, p. 815.

Miocene (John Day); Oregon.

BOTHROLABIS Cope. Type *B. rostratus* Cope.

Cope, E. D. 1888 E, pp. 63, 66.

1888 X, p. 1088.

Flower and Lydekker 1891 A, p. 291.

Stehlin, H. G. 1899 A, pp. 113, 193, 272, 320.

Steinmann and Döderlein 1890 A, p. 796.

Zittel, K. A. 1893 B, p. 342.

Bothrolabis pristinus (Leidy).Leidy, J. 1873 B, pp. 216, 319, pl. vii, figs. 13, 14.
(Dicotyles.)

Cope, E. D. 1879 B, p. 58. (Palæochærus.)

1888 E, pp. 66, 70.

Cope and Wortman, 1884 A, pp. 18, 19. (Dicotyles.)

Leidy, J. 1870 P, p. 112. ("Peccary.")

Matthew, W. D. 1899 A, p. 64.

Reinhardt, J. 1880 A, p. 30. (Dicotyles.)

Roger, O. 1896 A, p. 207.

Stehlin, H. G. 1899 A, pp. 114, 193, 273, 320.

Wilckens, M. 1885 B, p. 306. (Dycotyles.)

Miocene (John Day); Oregon.

Bothrolabis rostratus Cope.

Cope, E. D. 1888 E, pp. 66, 77.

Matthew, W. D. 1899 A, p. 64.

Roger, O. 1896 A, p. 207.

Stehlin, H. G. 1899 A, pp. 114, 193, 320.

Trouessart, E. L. 1898 A, p. 815.

Miocene (John Day); Oregon.

Bothrolabis subæquans Cope.

Cope, E. D. 1879 E, p. 374. (Palæochærus.)

1888 E, pp. 66, 67.

Lydekker, R. 1884 C, p. 93. (Hyotherium)

Matthew, W. D. 1899 A, p. 64.

Roger, O. 1896 A, p. 207.

Stehlin, H. G. 1899 A, pp. 114, 193, 273, 320.

Trouessart, E. L. 1898 A, p. 815.

Miocene (John Day); Oregon.

Bothrolabis trichænus Cope.

Cope, E. D. 1879 E, p. 373. (Thinohyus.)

1879 B, p. 58. (Palæochærus condoni.)

1888 E, pp. 66, 74.

Matthew, W. D. 1899 A, p. 64.

Roger, O. 1896 A, p. 207.

Stehlin, H. G. 1899 A, pp. 114, 193, 273, 320.

Trouessart, E. L. 1898 A, p. 815.

Miocene (John Day); Oregon.

TAYASSUIDÆ.

The name hitherto employed for this subfamily has been *Dicotylinae*.

Branco, W. 1897 A, p. 23.

Cope, E. D. 1888 E.

1888 X, p. 1088.

1889 G, p. 134.

Cope and Wortman 1884 A, pp. 16, 17.

Flower and Lydekker 1891 A, p. 289. (Dicotylidæ.)

Gill, T. 1872 B, pp. 11, 83. (Dicotylidæ.)

Gray, J. E. 1868 A, p. 43. (Dicotylidæ.)

1869 A, p. 350. (Dicotylidæ.)

Leidy, J. 1853 G.

Roger, O. 1896 A, p. 207.

Trouessart, E. L. 1898 A, p. 816.

Zittel, K. A. 1893 B, p. 342.

TAYASSU Fischer. Type *Dicotyles torquatus* Cuv.

Fischer, G. 1814, Zoognosia, iii, pp. 284-289.

Unless otherwise indicated, the following authors use for this genus the name *Dicotyles*.

Ameghino, F. 1889 A, p. 573.

Baird, S. F. 1859 A, p. 627.

Burmester, H. 1867 A, p. 236. ("Dicotyle Cuv.")

Cope, E. D. 1875 L, p. 21.

1887 B, p. 384.

1888 E, p. 62.

1888 X, p. 1088.

1889 G, p. 134. (Dicotyles; Mylohyus, type *D. nasutus*.)

1899 A, p. 259. (Mylohyus.)

Cope and Wortman 1884 A, p. 17.

Cuvier, G., 1817, Règne Anim, I, p. 237.

Flower, W. H. 1873 A.

Flower and Lydekker 1891 A, p. 289.

Gervais and Ameghino 1880 A, p. 111. ("Dicotyle.")

Gray, J. E. 1868 A, p. 45.

1869 A, p. 351.

Holmes, F. S. 1858 B.

Klippart, J. H. 1875 A.

Leidy, J. 1853 G.

1857 J.

1871 C, p. 352.

Lydekker, R. 1885 C, p. 250.

Nicholson and Lydekker 1889 A, p. 1322.

Owen, R. 1845 B, p. 559.

1848 A, p. 123.

1866 B, p. 458.

Palmer, T. S. 1899 A, p. 494. (Tayassu.)

Paulli, S. 1900 A, p. 198.

Reinhardt, J. 1880 A.

Rütmeyer, L. 1862 A, pp. 578, 584.

Schlosser, M. 1885 A, p. 685.

1886 A, p. 255.

1886 B, p. 89.

Scott, W. B. 1890 B.

1891 A, p. 48, *et seq.*

1892 A, p. 438.

Scott and Osborn 1890 B, p. 76.

Stehlin, H. G. 1899 A, pp. 111, 186, 208, 270, 318, 332.

Steinmann and Döderlein 1890 A, p. 796.

Trouessart, E. L. 1898 A, p. 817.

Turner, H. N. 1848 A, p. 70.

Wilckens, M. 1885 B, pp. 217, 307.

Woodward, A. S. 1898 B, p. 346.

Zittel, K. A. 1893 B, p. 342.

Tayassu hesperius (Marsh.)

Marsh, O. C. 1871 D, p. 42. (Dicotyles.)

Cope, E. D. 1879 E, p. 373. (Chaenohyus?)

Cope and Wortman 1884 A, p. 18. (Dicotyles.)

King, C. 1878 A, p. 443. (Dicotyles.)

Stehlin, H. G. 1899 A, pp. 115, 194. (Dicotyles.)

Trouessart, E. L. 1898 A, p. 815. (Bothrolabis subaequans.)

Wilckens, M. 1885 B, p. 306. (Dicotyles.)

Pliocene; Oregon.

Tayassu nasutus (Leidy.)

Leidy, J. 1868 I, p. 230. (Dicotyles.)

Conrad, T. A. 1869 A, p. 363. (Dicotyles.)

Cope, E. D. 1869 E, p. 176. (Dicotyles.)

1869 N, p. 741. (Dicotyles.)

1888 X, p. 1089. (Dicotyles.)

1889 G, p. 134. (Dicotyles, Mylohyus.)

1899 A, p. 263. (Mylohyus.)

Cope and Wortman 1884 A, p. 18. (Dicotyles.)

Kindle, E. M. 1898 A, p. 485. (Dicotyles.)

Leidy, J. 1860 C. ("Peccary.")

1869 A, pp. 385, 445, pl. xxviii, figs. 1, 2. (Dicotyles.)

1871 C, p. 352. (Dicotyles.)

Reinhardt, J. 1880 A, p. 29. (Dicotyles.)

Roger, O. 1896 A, p. 208. (Dicotyles.)

Stehlin, H. G. 1899 A, pp. 115, 190, 273, 319. (Dicotyles.)

Trouessart, E. L. 1898 A, p. 817. (Dicotyles.)

Pleistocene; Indiana, New Jersey.

Tayassu pennsylvanicus (Leidy.)

Leidy, J. 1889 H, p. 8, pl. II, figs. 3-6. (Dicotyles.)

Cope, E. D. 1899 A, pp. 259, 262. (Mylohyus.)

Leidy, J. 1880 A, p. 347. (Dicotyles nasutus.)

Mercer, H. C. 1894 A, p. 98. (Dicotyles.)

Pleistocene; Pennsylvania.

Tayassu serus (Cope.)

Cope, E. D. 1878 C, p. 224. (Dicotyles.)

1889 G, p. 134. (Dicotyles.)

Cope and Wortman 1884 A, p. 19. (Dicotyles.)

Matthew, W. D. 1899 A, p. 72. (Dicotyles.)

Reinhardt, J. 1880 A, p. 28. (Dicotyles.)

Roger, O. 1896 A, p. 208. (Dicotyles.)

Stehlin, H. G. 1899 A, pp. 115, 189, 319. (Dicotyles.)

Trouessart, E. L. 1898 A, p. 817. (Dicotyles.)

Miocene (Loup Fork); Kansas.

Tayassu tajacu (Linn.).

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 50. (Sus.)

Ameghino, F. 1889 A, p. 574. (Dicotyles.)

Baird, S. F. 1857 A, p. 627, pl. lxxxvii. (Dicotyles.)

Blainville, H. M. D. 1864 A, iv, AA, p. 138, pls. II, III, v-viii. (Sus torquatus.)

Cope, E. D. 1867 C, p. 151 (Cynorca proterva, in part); p. 155 (Dicotyles torquatus.)

1868 I, p. 185. ("Dicotyles.")

1889 G, p. 134. (Dicotyles tajassus.)

Cope and Wortman 1884 A, pp. 18, 19. (Dicotyles torquatus.)

Flower and Lydekker 1891 A, p. 290, fig. 109. (Dicotyles.)

Kindle, E. M. 1898 A, p. 485. (Dicotyles torquatus.)

Le Conte, J. L. 1848 A, p. 104. (Dicotyles torquatus.)

Leidy, J. 1860 B, p. 108, pl. xvii, figs. 13, 14. (Dicotyles fossilis.)

1869 A, p. 384. (Dicotyles lenis.)

1871 C, p. 352. (Dicotyles lenis.)

Lydekker, R. 1885 C, p. 252. (Dicotyles.)

- Marsh, O. C. 1885 B, p. 293, fig. 112. (*Dicotyles torquatus*.)
 Reinhardt, J. 1880 A. (*Dicotyles torquatus*, D. lenis.)
 Roger, O. 1896 A, p. 208. (D. *torquatus*.)
 Scott, W. B. 1890 B, p. 385. (*Dicotyles torquatus*.)
 Stehlin, H. G. 1899 A, pp. 111, 187, 208, 318, 334. (*Dicotyles torquatus*.)
 Trouessart, E. L. 1898 A, p. 817. (*Dicotyles*.)
 Wyman, J. 1862 A, p. 422. (*Dicotyles*.)
 Zittel, K. A. 1893 B, p. 342, fig. 280. (D. *torquatus*.)
 Living: South America, Central America, North America to Arkansas: Pleistocene; South Carolina, Maryland, Virginia, Wisconsin, Illinois, Iowa, Kentucky.

Tayassu tetragonus (Cope).

- Cope, E. D. 1899 A, pp. 259, 260, pl. xxi, figs. 3-3b. (*Mylobyus*.)
 Pleistocene; Pennsylvania.

Tayassu sp. indet.

- Leidy, J. 1869 A, p. 387. p. xxviii, fig. tyles.)
 Pliocene?; Niobrara River.

Tayassu sp. indet.

- Scott, W. B. in Scott and Osborn 1890 B, p. 76, fig. 6. (*Dicotyles*.)
 Stehlin, H. G. 1899 A, pp. 20, 115, 195. (*Dicotyles*.)
 Williston, S. W. 1894 C, p. 24. (*Platygonus*.)
 Miocene (Loup Fork); Nebraska?

PLATYGONUS Le Conte. Type *P. compressus* Le Conte.

- Le Conte, J. L. 1848 A, p. 103. (*Platigonus*.)¹
 Cope, E. D. 1887 B, p. 384.
 1889 G, p. 134.
 Le Conte, J. L. 1848 A, p. 104 (*Hyops*, type *H. depressifrons*); p. 105 (*Protochærus*, type *P. prismaticus*—*Platygonus compressus*.)
 1848 B, p. 257.
 Leidy, J. 1853 G. (*Platygonus*; *Euchærus*, type *E. macrops*—*P. compressus*.)
 1869 A, p. 353.
 1871 C, p. 353.
 1889 G, p. 41.
 Marsh, O. C. 1877 E.
 Nicholson and Lydekker 1889 A, p. 1322.
 Pictet, F. J. 1853 A, p. 303 (*Platygonus*); p. 326 (*Hyops*.)
 Reinhardt, J. 1880 A, p. 29.
 Schlosser, M. 1886 B, p. 89.
 Stehlin, H. G. 1899 A, pp. 116, 190, 210, 319.
 Steinmann and Döderlein 1890 A, p. 796.
 Wilckens, M. 1885 B, p. 270 (*Hyops*); p. 304 (*Platygonus*.)
 Williston, S. W. 1894 C.
 Zittel, K. A. 1893 B, p. 342.

Platygonus bicalcaratus Cope.

- Cope, E. D. 1893 A, p. 68, fig. 5.
 Matthew, W. D. 1899 A, p. 75.
 Stehlin, H. G. 1899 A, p. 117.
 Trouessart, E. L. 1898 A, p. 816.
 Williston, S. W. 1894 C, p. 24.
 Pliocene (Blanco); Texas.

Platygonus compressus Le Conte.

- Le Conte, J. L. 1848 A, p. 103, figs. 1, 2.
 Cope, E. D. 1869 E, p. 176. (*Dicotyles*.)
 1884 G, p. 15.
 1888 X, p. 1092, fig. 6.
 1889 F.
 Cope and Wortman, 1884 A, p. 20.
 Harlan, R. 1825 A, p. 222. ("Extinct peculi.")
 Kindel, E. M. 1898 A, p. 485.
 Klippart, J. H. 1875 A. (*Dicotyles*.)
 L. P. B. 1885 A, p. 193, fig. 28.
 Le Conte, J. L. 1848 A, p. 104 (*Hyops depressifrons*); p. 105 (*Protochærus prismaticus*.)
 1848 B, pls. i-iv.

- Le Conte, J. L. 1852 A, p. 3 (*Dicotyles depressifrons*); p. 5 (*Protochærus prismaticus*.)
 1852 B. (*Dicotyles costatus*.)
 1852 D. (*Hyops depressifrons*, *P. compressus*.)
 Leidy, J. 1853 G, p. 323, pl. xxxvii, figs. 12-16; pl. xxxviii, figs. 2, 3 (*P. compressus*); p. 342, pl. xxxviii, fig. 1 (*Dicotyles depressifrons*); p. 342, pl. xxxvii, fig. 18 (*Protochærus prismaticus*); p. 342. (*Dicotyles costatus*); p. 340, pl. xxxvi, figs. 1, 2; pl. xxxvii, figs. 5-8 (*Euchærus macrops*.)
 1856 R. (*Dicotyles*.)
 1857 J, pl. vi, figs. 2-7. (*Dicotyles*.)
 1862 A. (*Dicotyles*.)
 1868 I, p. 231. (*Dicotyles*.)
 1869 A, pp. 200, 383.
 1870 H, p. 13.
 1871 C, p. 353.
 1889 G, p. 41, pl. viii, fig. 1.
 1889 H, p. 12.
 Marsh, O. C. 1844 F, fig. 761
 1885 B, fig. 109.
 Miller, G. S. 1899 B, p. 372.
 Newberry, J. S. 1874 F, p. 77. (*Dicotyles*.)
 1875 A, p. vi. (*Dicotyles*.)
 Pictet, F. J. 1853 A, p. 303 (*P. compressus*); p. 325 (*Protochærus prismaticus*.)
 Reinhardt, J. 1880 A, p. 29. (*Dicotyles*.)
 Roger, O. 1896 A, p. 208.
 Stehlin, H. G. 1899 A, pp. 117, 190, 273.
 Trouessart, E. L. 1898 A, p. 817.
 Williston, S. W. 1894 C, p. 24.
 1897 I, p. 303.
 1898 I, p. 92.
 Wyman, J. 1862 A, p. 422. ("Dicotyles.")
 Pleistocene; Illinois, Indiana, Kentucky, Ohio, New York, Missouri, Iowa, Kansas.
- Platygonus condoni** Marsh.
 Marsh, O. C. 1871 D, p. 41.
 Cope, E. D. 1886 B, p. 359.
 1886 H.
 Cope and Wortman 1884 A, pp. 18, 19. (*Dicotyles*.)
 King, C. 1878 A, p. 443.
 Reinhardt, J. 1880 A, p. 30.
 Roger, O. 1896 A, p. 208.
 Stehlin, H. G. 1899 A, p. 118.

¹ This, the original spelling of this generic name, was probably due to a printer's error.

Trouessart, E. L. 1898 A, p. 816.
 Wilckens, M. 1885 B, p. 306.
 Williston, S. W. 1894 C, p. 24.
 Pliocene; Oregon.

Platygonus leptorhinus Willist.

Williston, S. W. 1894 F.
 Stehlin, H. G. 1899 A, pp. 117, 191, 273, 333.
 Trouessart, E. L. 1898 A, p. 816.
 Williston, S. W. 1894 C, p. 27, pls. vii, viii; text
 figs. 1-6.
 Pliocene; Kansas.

Platygonus rex Marsh.

Marsh, O. C. 1894 L, p. 273, figs. 31, 32.
 Roger, O. 1896 A, p. 208.
 Stehlin, H. G. 1899 A, pp. 21, 115. (Dicotyles.)
 Trouessart, E. L. 1898 A, p. 816.
 Pliocene; Oregon.

Platygonus striatus Marsh.

Marsh, O. C. 1871 D, p. 41.
 King, C. 1878 A, p. 430.
 Matthew, W. D. 1899 A, p. 72.
 Roger, O. 1896 A, p. 208.
 Stehlin, H. G. 1899 A, p. 118.
 Trouessart, E. L. 1898 A, p. 816.
 Williston, S. W. 1894 C, p. 24.
 Miocene (Loup Fork); Nebraska.

THINOTHERIUM Cope. Type *T. annulatum* Cope. Not *Thinotherium* Marsh, 1872.

Cope, E. D. 1870 F, p. 292.

A genus of which little is known. Regarded
 at the time of description as belonging to the
 Hippopotamidae.

Platygonus vetus Leidy.

Leidy, J. 1882 A, p. 301.
 Cope, E. D. 1888 X, p. 1089.
 Cope and Wortman 1884 A.
 Dugès, A. 1891 A, p. 16, pls. i, ii. (P. alemanii.)
 Leidy, J. 1889 G, p. 49.
 1889 H, p. 12, pl. ii, figs. 1, 2.
 Lesley, J. P. 1889 A, p. 690, figure.
 Mercer, H. C. 1894 A, p. 98. (Dycotyles pennsylvanicus.)
 Roger, O. 1896 A, p. 208.
 Stehlin, H. G. 1899 A, p. 117.
 Trouessart, E. L. 1898 A, p. 816.
 Williston, S. W. 1894 C.
 Pleistocene; Pennsylvania.

Platygonus zieglerei Marsh.

Marsh, O. C. 1871 D, p. 40.
 Cope and Wortman 1884 A, p. 21.
 Leidy, J. 1872 B, p. 365.
 Matthew, W. D. 1899 A, p. 48.
 Roger, O. 1896 A, p. 207.
 Stehlin, H. G. 1899 A, pp. 20, 118, 191.
 Trouessart, E. L. 1898 A, p. 816.
 Williston, S. W. 1894 C, p. 24.
 Eocene (Bridger); Wyoming.
 The generic position of this species is doubtful.

Thinotherium annulatum Cope.

Cope, E. D. 1870 F, p. 292.
 Roger, O. 1896 A, p. 207.
 Miocene?; Virginia.

SUINÆ.

Roger, O. 1896 A, p. 209.

| Zittel, K. A. 1893 B, p. 343.

Sus Linn. Type *S. scrofa* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 49.
 Blainville, H. M. D. 1864 A, iv, AA, pls. i-ix.
 Flower and Lydekker 1891 A, p. 281.
 Hensel, R. 1875 A.
 Huxley, T. H. 1872 A, p. 313.
 Owen, R. 1845 B, p. 544.
 1866 B, p. 458.
 1868 A, p. 344, fig. 273.
 Parker, W. K. 1874 B, pls. xxviii-xxxvii.
 Paulli, S. 1900 A, p. 193.
 Pomel, A. 1848 A.
 Roger, O. 1896 A, p. 209.
 Rüttmeyer, L. 1862 B.
 1867, Verh. naturf. Gesellsch. Basel, iv, pp.
 139-176.
 Stehlin, H. G. 1899 A.
 Trouessart, E. L. 1898 A, p. 820.
 Woodward, A. S. 1898 B, 345.
 Zittel, K. A. 1893 B, p. 344.

Sus scrofa Linn.

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 49.
 Agassiz, L. in Holmes F. S. 1858 A ("Hog.")
 Blainville, H. M. D. 1864 A, iv, AA, p. 113, pls. ii,
 iii, vi-viii.

Cope, E. D. 1870 E, p. 284. (Sus vagrans.)
 1873 E (S. vagrans.)
 1873 F, p. 291. (Sus vagrans.)
 1873 L, p. 207. (S. scrofa.)
 Emmons, E. 1858 B, p. 198, fig. 22.
 Holmes, F. S. 1850 B, p. 203. ("Hog.")
 1858 A ("Hog.")
 Leidy, J. 1860 B, p. 109, pl. xix, figs. 4, 5.
 1869 A, p. 443.
 1873 E.
 Owen, R. 1866 B, pp. 458, 467, figs. 313-315.
 Paulli, S. 1900 A, p. 193, figs. 7, 8.
 Rafinesque, C. S., 1831, Enum. some remark, nat.
 objects. (Aper pœari.)
 Roger, O. 1896 A, p. 210.
 Rüttmeyer, L. 1862 B, p. 26.
 Stehlin, H. G. 1899 A.
 Trouessart, E. L. 1898 A, p. 821.

This species has been reported from various
 parts of the United States, North Carolina, South
 Carolina, New Jersey, Nebraska, and from de-
 posits ranging from the Miocene to the present;
 but it is most probable that all the remains
 have been derived from the introduced race.

Superfamily CAMELOIDEA Gill.

Gill, T. 1872 B, p. 76.

Following the suggestions of Dr. W. B. Scott, this group is made to include the Agriochoeridae and their allies. Unless otherwise indicated, the following authorities use for this group, in the restricted sense, the name Tylopoda.

Burmeister, H. 1867 A, p. 233.

Cope, E. D. 1898 B, p. 132.

Flower, W. H. 1874 A.

1885 A.

Flower and Lydekker 1891 A, p. 295.

Rüttimeyer, L. 1867 B. (Camelina.)

Schlosser, M. 1886 A, p. 255.

Scott, W. B. 1890 B, p. 387.

1891 A.

1891 C, p. 63.

1892 C, p. 15.

1898 C, p. 75.

1899 A, p. 111.

Slade, D. D. 1893 A.

Woodward, A. S. 1898 B, p. 358.

Wortman, J. L. 1898 A, p. 94.

AGRIOCHERIDÆ.

Unless otherwise indicated, the following authors use the family name Oreodontidae.

Ameghino, F. 1889 A, p. 576.

Bettany, G. T. 1873 A.

1876 A.

Cope, E. D. 1874 B, p. 463.

1884 H, p. 26.

1884 M.

1884 T.

1884 DD.

1885 B, p. 487.

1887 B, pp. 379, 386.

1887 N.

1888 X, pp. 1080, 1092.

1889 C, p. 171, *et seq.*

Flower and Lydekker 1891 A, p. 293. (Cotylo-
pidae.)

Gill, T. 1872 B, pp. 10, 81.

Leidy, J. 1869 A, pp. 71, 379 (Oreodontidae); p. 131
(Agriochoeridae).

1871 C, p. 345 (Oreodontidae); p. 348 (Agrio-
choeridae).

1873 B, p. 318.

Major, Fors. 1873 A, p. 104.

Marsh, O. C. 1877 E.

Nicholson and Lydekker 1889 A, p. 1326. (Coty-
lopidae.)

Osborn and Wortman 1894 A, p. 215.

Roger, O. 1896 A, p. 212.

Schlosser, M. 1886 A, p. 255.

1886 B, p. 46.

1888 A.

1890 C.

Scott, W. B. 1885 B.

1889 C.

1890 A, p. 490.

1890 B.

1891 A, p. 71.

1892 A, p. 433.

1895 C, p. 164.

1898 C, p. 74.

1899 A, p. 85.

Steinmann and Döderlein 1890 A, p. 799.

Trouessart, E. L. 1898 A, p. 835.

Woodward, A. S. 1898 B, p. 354.

Zittel, K. A. 1893 B, pp. 348, 356.

AGRIOCHERINÆ.

Cope, E. D. 1884 M, p. 571.

Flower and Lydekker 1891 A, p. 293.

Leidy, J. 1869 A, p. 131. (Agriochoeridae.)

1871 C, p. 348. (Agriochoeridae.)

Lydekker, R. 1896 B, p. 375. (Agriochoeridae.)

Major, Fors. 1873 A, p. 104. (Agriochoeridae.)

Osborn, H. F. 1893 F, p. 132. (Artionychia.)

1893 J, p. 611. (Artionychia.)

Osborn and Wortman 1893 A, p. 4. (Artionychia.)

Roger, O. 1896 A, p. 212.

Scott, W. B. 1889 C, p. 75.

1890 B, pp. 320, 358.

1892 A, p. 434.

1899 A, p. 101. (Agriochoeridae.)

Trouessart, E. L. 1898 A, p. 833.

Zittel, K. A. 1893 B, p. 351.

PROTAGRIOCHERUS Scott.

Scott, W. B. 1899 A, p. 100.

Type *P. annectens* Scott.

Protagriochoerus annectens Scott.

Scott, W. B. 1899 A, p. 100, pl. iv, figs. 26-28.

Eocene (Utah); Utah.

AGRIOCHERUS Leidy. Type *A. antiquus* Leidy.

Leidy, J. 1850 C, p. 121.

Cope, E. D. 1879 E, p. 375. (Coloreodon, type *C.*
ferox.)

1879 K, p. 197. (Merycopater, type *Hyopot-*
amus guypotianus.)

1884 M, pp. 504, 559 (Agriochoerus); pp. 504,
570 (Coloreodon).

1887 B, p. 388 (Coloreodon); p. 398 (Agrio-
choerus).

Cope, E. D. 1888 X, p. 1094.

1889 C, p. 48.

1889 G, p. 119.

1894 E, p. 869. (Coloreodon.)

Leidy, J. 1852 L, p. 64.

1854 A, pp. 24, 113.

1869 A, p. 132.

1871 C, p. 349.

1873 B, p. 216.

Marsh, O. C. 1854 L, p. 270. (*Agriomeryx*, type *A. migrans*.)

Nicholson and Lydekker 1889 A, p. 1327. (*Agriochærus*, *Coloreodon*.)

Osborn, H. F. 1893 D, p. 44. (*Agriochærus*, *Artionyx*.)

1893 E. (*Artionyx*.)

1893 F. (*Artionyx*.)

1893 J, p. 611. (*Artionyx*.)

1893 K. (*Artionyx*.)

1898 A, p. 146.

Osborn and Wortman 1893 A, p. 5. (*Artionyx*, type *A. gaudryi*.)

Schlosser, M. 1885 A, p. 685.

1886 B, p. 47.

Scott, W. B. 1889 C, p. 75.

1890 A.

1890 B, p. 358 (*Agriochærus*); p. 361 (*Coloreodon*).

1891 A, p. 48.

1891 D, p. 90.

1892 A, p. 434.

1894 B.

1894 D.

1891 E.

1899 A, p. 88, 108.

Steinmann and Döderlein 1890 A, p. 799.

Trouessart, E. L. 1898 A, p. 834.

Woodward, A. S. 1898 B, p. 356.

Wortman, J. L. 1893 A. (*Artionyx*.)

1895 A, p. 145.

Zittel, K. A. 1893 B, p. 352. (*Agriochærus*, *Coloreodon*.)

***Agriochærus antiquus* Leidy.**

Leidy, J. 1850 C, p. 122.

Cope, E. D. 1879 E, p. 375. (*Merycopater*.)

1884 M, p. 560.

Hayden, F. V. 1858 B, p. 157.

King, C. 1878 A, p. 411.

Leidy, J. 1852 J, p. 571.

1852 L, p. 65.

1853 D, p. 392.

1854 A, p. 24, pl. i, figs. 5-10.

1854 E, p. 157.

1869 A, pp. 132, 381, pl. xiii, fig. 4.

1870 P, p. 112.

1871 C, p. 349.

1873 B, pp. 216, 319.

Matthew, W. D. 1899 A, p. 60.

Roger, O. 1896 A, p. 212.

Trouessart, E. L. 1898 A, p. 833.

Wortman, J. L. 1895 A, p. 145, pl. i; text figs. 8-15. 17 (*A. latifrons*, not of Leidy); p. 177 (*A. antiquus*).

Oligocene (White River); South Dakota.

***Agriochærus auritus* Leidy.**

Leidy, J. 1852 J, p. 563, pl. xv, figs. 1, 2. (*Eucrotaphus*.)

Cope, E. D. 1884 M, p. 560. (*Eucrotaphus*.)

Leidy, J. 1854 A, pp. 56, 113, pl. vii, figs. 1-3. (*Eucrotaphus*.)

1869 A, p. 381. (Syn? of *A. major*.)

Trouessart, E. L. 1898 A, p. 834. (Syn? of *A. major*.)

Oligocene (White River); South Dakota.

If this species and *A. major* are identical, *A. auritus* will stand as the correct name.

***Agriochærus ferox* (Cope.)**

Cope, E. D. 1879 E, p. 375. (*Coloreodon*.)

1884 M, pp. 505, 570, figure. (*Coloreodon*.)

1884 T, p. 282. (*Coloreodon*.)

Matthew, W. D. 1899 A, p. 64. (*Agriochærus*.)

Roger, O. 1896 A, p. 213. (*Coloreodon*.)

Scott, W. B. 1890 B, pl. xiv, fig. 13; pl. xv, fig. 22. (*Coloreodon*.)

Trouessart, E. L. 1898 A, p. 834. [*Agriochærus* (*Coloreodon*).]

Wortman, J. L. 1895 A, p. 178. (*Agriochærus*.)

Miocene (John Day); Oregon.

***Agriochærus gaudryi* (Osb. and Wort.).**

Osborn and Wortman 1893 A, p. 5, figs. 1, 3, 4, 5 B. (*Artionyx*.)

Ameghino, F. 1894 A, p. 319. (*Artionyx*.)

Osborn, H. F. 1893 F, p. 131, fig. 4. (*Artionyx*.)

Roger, O. 1896 A, p. 212.

Scott, W. B. 1894 B.

Trouessart, E. L. 1898 A, p. 834. [*Agriochærus* (*Coloreodon*).]

Wortman, J. L. 1895 A, p. 170, figs. 1, 19, 20 (*Agriochærus major*); p. 178 (*Agriochærus gaudryi*?).

Oligocene (White River); South Dakota.

***Agriochærus guyotianus* Cope.**

Cope, E. D. 1879 D, p. 77. (*Hyopotamus*.)

1879 B, p. 58. (*Merycopater*.)

1879 E, p. 375. (*Merycopater guyotianus*.)

1879 K, p. 197. (*Merycopater*.)

1884 M, pp. 560, 563.

1884 T, p. 281.

1889 G, pl. iii.

Lydekker, R. 1883 A, p. 157. (*Merycopater*.)

Roger, O. 1896 A, p. 212.

Scott, W. B. 1890 B, pl. xiv, figs. 11, 12.

Trouessart, E. L. 1898 A, p. 834.

Wortman, J. L. 1895 A, figs. 2-7, 16-18.

Miocene (John Day); Oregon.

***Agriochærus latifrons* Leidy.**

Leidy, J. 1869 A, pp. 135, 381, pl. xiii, figs. 1-3.

Cope, E. D. 1884 M, p. 560.

1884 T, p. 281.

Leidy, J. 1867 D, p. 32.

1871 C, p. 349.

1873 B, pp. 216, 319.

Lydekker, R. 1896 B, p. 374, fig. 78.

Marsh, O. C. 1875 B, p. 250.

Matthew, W. D. 1899 A, p. 60.

Roger, O. 1896 A, p. 212.

Scott, W. B. 1890 B, text figs. vii, x³.

1891 A, p. 49.

Trouessart, E. L. 1898 A, p. 834.

Woodward, A. S. 1898 B, p. 357, fig. 204.

Wortman, J. L. 1895 A, p. 177 (in part, not figs. 8-15, 17).

Zittel, K. A. 1893 B, p. 352, fig. 287.

Oligocene (White River); South Dakota.

***Agriochærus macrocephalus* (Cope.)**

Cope, E. D. 1879 E, p. 376. (*Coloreodon*.)

1884 M, p. 570. (*Coloreodon*.)

1884 T, p. 281. (*Coloreodon*.)

Matthew, W. D. 1899 A, p. 64.

Roger, O. 1896 A, p. 213. (*Coloreodon*.)

Trouessart, E. L. 1898 A, p. 835. [*Agriochœrus* (Coloreodon).]

Wortman, J. L. 1895 A, p. 178.
Miocene (John Day); Oregon.

***Agriochœrus major* Leidy.**

Leidy, J. 1856 J, p. 164.

Cope, E. D. 1884 M, p. 560.
1884 T, p. 281.

Hayden, F. V. 1858 B, p. 157.

Leidy, J. 1869 A, pp. 134, 381.
1871 C, p. 349.

Matthew, W. D. 1899 A, p. 60.

Roger, O. 1896 A, p. 212.

Trouessart, E. L. 1898 A, p. 834.

Wortman, J. L. 1895 A, p. 178.

Oligocene (White River); South Dakota.

It is not unlikely that this species is identical with *A. auritus* Leidy. If this view is accepted, the name *auritus* will supersede *major*.

***Agriochœrus migrans* (Marsh).**

Marsh, O. C. 1894 L, p. 270, fig. 24. (*Agriomeryx*.)

Matthew, W. D. 1899 A, p. 60. (*Agriochœrus*.)

Trouessart, E. L. 1898 A, p. 834. [*Agriochœrus* (Coloreodon).]

Oligocene (White River); South Dakota.

***Agriochœrus ryderanus* Cope.**

Cope, E. D. 1881 C, p. 173. (Coloreodon.)

1884 M, pp. 560, 566.
1884 T, p. 281.

Roger, O. 1896 A, p. 212.

Trouessart, E. L. 1898 A, p. 834.

Wortman, J. L. 1895 A, p. 178.

Miocene (John Day); Oregon.

***Agriochœrus trifrons* Cope.**

Cope, E. D. 1884 M, pp. 560, 561.

1884 T, p. 281.

Matthew, W. D. 1899 A, p. 64.

Roger, O. 1896 A, p. 212.

Trouessart, E. L. 1898 A, p. 834.

Wortman, J. L. 1895 A, p. 177.

Miocene (John Day); Oregon.

PROTOREODONTINÆ.

Scott, W. B. 1890 A, p. 503.

Flower and Lydekker 1891 A, p. 293.

Marsh, O. C. 1894 L, p. 267. (*Emericidae*.)

Roger, O. 1896 A, p. 212.

Scott, W. B. 1890 B, pp. 320, 361.

1899 A, p. 85. (*Oreodontidae*, in part.)

Zittel, K. A. 1893 B, p. 351.

PROTOREODON Scott and Osb.

Scott and Osborn 1887 A, p. 257.

Berg, C., 1899, Commun. Mus. Nac. Buenos Aires, 1, p. 79. (*Chorotherium*, to replace *Agriotherium*, preoccupied.)

Cope, E. D. 1888 X, p. 1082.

1890 C, p. 471.

Flower and Lydekker 1891 A, p. 293.

Marsh, O. C. 1894 L, p. 268. (Syn. of *Eomeryx*.)

Nicholson and Lydekker 1889 A, p. 1328.

Pavlow, M. 1900 A, pp. 34, 44.

Scott, W. B. 1889 C, p. 76.

1890 A, p. 487, pl. vii, figs. 1-8.

1890 B, p. 361, pl. xiii, figs. 1-3; pl. xvi, figs. 23-26.

1892 A, p. 433.

1894 E.

1898 C, p. 79. (*Agriotherium*, type *A. paradoxicum*.)

1899 A, p. 85.

Wortman, J. L. 1898 A, p. 96.

Zittel, K. A. 1893 B, p. 351.

***Protoreodon minor* Scott.**

Scott, W. B. 1899 A, p. 95, pl. iii, fig. 23.

Eocene (Uinta); Utah.

***Protoreodon paradoxicus* Scott.**

Scott, W. B. 1898 C, p. 79. (*Agriotherium*.)

Type *P. parvus* Scott and Osb.

Matthew, W. D. 1899 A, p. 50. (*Agriotherium*.)

Scott, W. B. 1899 A, pp. 86, 95, pl. iv, figs. 24, 25. (*Protoreodon*.)

Eocene (Uinta); Utah.

***Protoreodon parvus* Scott and Osb.**

Scott and Osborn 1887 A, p. 257, figure.

Cope, E. D. 1890 C, p. 470.

Marsh, O. C. 1894 L, p. 268. (Syn. of *Eomeryx pumilis*.)

Matthew, W. D. 1899 A, p. 50. (*Eomeryx*.)

Pavlow, M. 1900 A, p. 34.

Roger, O. 1896 A, p. 212.

Scott, W. B. 1890 A, p. 487, pl. vii, figs. 1-8.

1890 B, pl. xiii, figs. 1-3; pl. xvi, figs. 23-26.

1899 A, pp. 89, 95, pl. iii, figs. 19-21.

Trouessart, E. L. 1898 A, p. 833.

Wortman, J. L. 1898 A, p. 96.

Zittel, K. A. 1893 B, p. 351, fig. 286.

Eocene (Uinta); Utah.

***Protoreodon* sp. indet.**

Scott, W. B. 1899 A, p. 95, pl. iii, fig. 22.

Eocene (Uinta); Utah.

FOMERYX Marsh. Type *E. pumilis* Marsh.

Marsh, O. C. 1894 L, p. 266.

Cope, E. D. 1894 E, p. 869. (Syn. of *Protoreodon*.)

Marsh, O. C. 1877 E. (Inadequate description; no species.)

Pavlow, M. 1900 A, p. 34.

Scott, W. B. 1890 A, p. 488.

1899 A, pp. 85, 86. (Syn. of *Protoreodon*.)

Scott and Osborn 1887 A, p. 259.

Wortman, J. L. 1898 A, p. 96.
Zittel, K. A. 1893 B, p. 351. (Syn.? of *Protoreodon*.)

Eomeryx pumilis Marsh.

Marsh, O. C. 1875 B, p. 250. (*Agriochoerus*,
Cope, E. D. 1884 M, p. 560. (*Agriochoerus*.)
King, C. 1878 A, p. 407. (*Agriochoerus*.)
Marsh, O. C. 1894 L, p. 266, figs. 18-22.

Matthew, W. D. 1899 A, p. 50.
Pavlow, M. 1900 A, p. 34.
Scott, W. B. 1890 A, p. 487. (*Agriochoerus*.)
1899 A, pp. 86, 96. (*Protoreodon*.)
Scott and Osborn 1887 A, p. 258. (*Protoreodon*?)
Trouessart, E. L. 1898 A, p. 833. (Syn. of *Protoreodon parvus*.)
Wortman, J. L. 1898 A, p. 96.
Eocene (Uinta); Utah.

HYOMERYX Marsh. Type *H. breviceps* Marsh.

Marsh, O. C. 1894 L, p. 145.
Scott, W. B. 1898 C, p. 81.
1899 A, pp. 96, 99.
Wortman, J. L. 1898 A, p. 97.

Hyomeryx breviceps Marsh.

Marsh, O. C. 1894 L, p. 268, fig. 19.

Matthew, W. D. 1899 A, p. 50.
Roger, O. 1896 A, p. 212.
Trouessart, E. L. 1898 A, p. 833.
Wortman, J. L. 1898 A, p. 145.
Eocene (Uinta); Utah.

MERYCOIDODONTINÆ.

Branco, W. 1897 A, p. 24. (*Oreodontinæ*.)
Cope, E. D. 1884 M, p. 571. (*Oreodontinæ*.)
Flower and Lydekker 1891 A, p. 293. (*Cotylopi-
næ*.)
Gill, T. 1872 B, p. 81. (*Oreodontinæ*.)

Lydekker, R. 1896 B, p. 373. (*Cotylopidæ*.)
Schlosser, M. 1890 D, p. 722. ("Oreodonten.")
Scott, W. B. 1889 C, p. 75. (*Oreodontinæ*.)
1892 A, p. 434. (*Oreodontinæ*.)
Zittel, K. A. 1893 B, p. 352. (*Oreodontidæ*.)

MERYCOIDODON Leidy. Type *M. culbertsonii* Leidy.

Leidy, J. 1848 B, p. 47.

The generic name *Merycoidodon* clearly has priority over both *Oreodon* and *Cotylops*, notwithstanding the fact that it has been discarded by Leidy himself and succeeding writers. Unless otherwise indicated, the following authors employ the name *Oreodon*.

Bettany, G. T. 1873 A.
1876 A.
Bruce, A. T. 1883 A, p. 36, figs. 1-4. (*Oreodon*.)
Cope, E. D. 1884 H, p. 22.
1884 M, p. 506.
1885 B, p. 483.
1887 B, p. 386.
1887 S, p. 85.
1888 X, p. 1093.
Dawkins, W. B. 1870 A.
Flower, W. H. 1873 A.
Flower and Lydekker 1891 A, p. 293. (*Cotylops*.)
Gaudry, A. 1878 B, p. 82.
Grinnell and Dana 1876 A.
Hay, O. P. 1899 A, p. 594. (*Merycoidodon*.)
Leidy, J. 1851 D, p. 238 (*Oreodon*); p. 239 (*Cotylops*, type *C. speciosa*).
1852 J, pp. 540, 548.
1852 L, p. 64. (*Oreodon*, *Merycoidodon*.)
1854 A, pp. 29, 47, 113.
1869 A, pp. 72, 379.
1870 P, p. 111.
1871 C, p. 345.
1873 B, p. 201.
Marsh, O. C. 1873 H, p. 409.
1875 B, p. 250.
1877 E.
1884 F, p. 172.
Nicholson and Lydekker 1889 A, p. 1326. (*Cotylops*.)

Schlosser, M. 1886 B, p. 47.
Scott, W. B. 1884 C.
1885 B.
1889 C, p. 75.
1890 A.
1890 B, p. 320.
1891 A, p. 53.
1894 D.
1894 H.
1895 C, p. 125, *et seq.*
1899 A, p. 87.
Steinmann and Döderlein 1890 A, p. 799.
Trouessart, E. L. 1898 A, p. 835.
Woodward, A. S. 1898 B, p. 354.
Wortman, J. L. 1895 A, p. 173.
Zittel, K. A. 1893 B, p. 352.

Merycoidodon affinis (Leidy).

Leidy, J. 1869 A, pp. 105, 380, pl. ix, fig. 3. (*Oreodon*.)
Cope, E. D. 1884 M, p. 512. (*Oreodon*.)
1884 T, p. 281. (*Oreodon*.)
Leidy, J. 1869 A, p. 96, No. 10. (*Oreodon*.)
1871 C, p. 346. (*Oreodon*.)
1873 B, p. 212. (*Oreodon*.)
Roger, O. 1896 A, p. 213. (*Oreodon*.)
Trouessart, E. L. 1898 A, p. 835. (*Oreodon*.)
Oligocene (White River); South Dakota.

Merycoidodon bullatus (Leidy).

Leidy, J. 1869 A, pp. 106, 380. (*Oreodon*.)
Cope, E. D. 1884 M, p. 517. (Syn. of *Eucrotaphus jacksoni*.)
King, C. 1878 A, p. 411. (*Eporeodon*.)
Leidy, J. 1871 C, p. 346. (*Oreodon*.)
1873 B, p. 212 (*Oreodon bullatus*); p. 318 (*Oreodon culbertsonii*).

Marsh, O. C. 1875 B, p. 250. (Eporeodon.)
 Matthew, W. D. 1899 A, p. 60. (Oreodon.)
 Osborn and Wortman 1894 A, p. 218, fig. 5c. (Oreodon.)

Roger, O. 1896 A, p. 213. (O. jacksoni.)
 Scott, W. B. 1890 B, pl. xiii, fig. 6. (Oreodon.)
 Trouessart, E. L. 1898 A, p. 836. (Eucrotaphus.)
 Oligocene (White River); South Dakota.

Merycoidodon culbertsonii Leidy.

Leidy, J. 1848 B, p. 47, plate.

Unless otherwise indicated, the following authors refer to this species under the generic name *Oreodon*.

Bettany, G. T. 1873 A.
 Cope, E. D. 1884 M, pp. 511, 512, 513. (O. culbertsonii and O. culbertsonii periculatorum.)
 1888 X, p. 1094.

Farr, M. S. 1896 A, p. 157.

Gaudry, A. 1878 B, p. 81, fig. 90.

Hayden, F. V. 1858 B, p. 157.

King, C. 1878 A, p. 411.

Leidy, J. 1851 D, p. 239 (Cotylops speciosa); p. 238 (O. prisicum).

1851 E, p. 276. (Oreodon robustum.)

1852 J, p. 548, pl. x, figs. 4-6; pl. xiii, figs. 3, 4.

1852 L, p. 64. (Oreodon prisicum, M. culbertsonii.)

1853 D, p. 392.

1854 A, pp. 45, 113, pls. ii, iii; pl. iv, figs. 1-5; pl. v, figs. 1, 2; pl. vi, figs. 8-11.

1854 E.

1869 A, pp. 86, 379, pl. vi, fig. 1; pl. vii, fig. 2; pl. ix, fig. 1.

1870 J, p. 67.

1870 P, p. 112.

1871 C, p. 345.

1873 B, pp. 211, 318.

Lydekker, R. 1885 C, p. 207.

Marsh, O. C. 1870 D.

Matthew, W. D. 1899 A, p. 60.

Osborn and Wortman 1894 A, p. 215, fig. 5 A.

Roger, O. 1896 A, p. 213.

Scott, W. B. 1890 B, pl. xii; pl. xiii, fig. 4; pl. xvi, figs. 27-29; text figs. ii, iii, iv, x.

Stewart, A. 1897 A, pl. i.

EUCROTAPHUS Leidy. Type *E. jacksoni* Leidy.

Leidy, J. 1850 A, p. 90.

Cope, E. D. 1884 H, p. 23.

1884 M, pp. 504, 513.

1884 T.

1885 B, p. 484.

1887 B, p. 386.

1888 X, p. 1093.

Leidy, J. 1851 D, p. 239.

1852 J, p. 562.

1852 L, p. 64.

1854 A, pp. 56, 113.

1854 C, p. 157.

1873 B, p. 212.

Nicholson and Lydekker 1889 A, p. 1327.

Scott, W. B. 1890 B, p. 320. (Syn. of *Oreodon*.)

Trouessart, E. L. 1898 A, p. 835.

Zittel, K. A. 1893 B, p. 353, fig. 288.

Oligocene (White River); South Dakota.

Merycoidodon gracilis Leidy.

Leidy, J. 1851 D, p. 239. (Oreodon.)

Cope, E. D. 1874 B, p. 498. (Oreodon.)

1884 M, pp. 511, 512. (Oreodon, with varieties *gracilis* and *coloradoensis*.)

1884 T, p. 281. (Oreodon.)

Hayden, F. V. 1858 B, p. 157. (Oreodon.)

King, C. 1878 A, p. 411. (Oreodon.)

Leidy, J. 1852 J, p. 550, pl. xi, figs. 2, 3; pl. xiii, figs. 5, 6. (Oreodon.)

1852 L, p. 64. (Oreodon.)

1853 D, p. 392. (Oreodon.)

1854 A, p. 53, pl. v, figs. 3, 4; pl. vi, figs. 1-7. (Oreodon, *Merycoidodon*.)

1854 E, p. 157. (Oreodon.)

1869 A, pp. 94, 379, pl. vi, figs. 2, 3. (Oreodon.)

1871 C, p. 346. (Oreodon.)

1873 B, p. 211. (Oreodon.)

Osborn and Wortman 1894 A, p. 216, fig. 5, B. (Oreodon.)

Roger, O. 1896 A, p. 213. (Oreodon.)

Scott, W. B. 1890 B, pl. xiii, fig. 5; text figs. i, ix, x, 5. (Oreodon.)

Scott and Osborn 1887 B, p. 154. (Oreodon.)

Trouessart, E. L. 1898 A, p. 835. (Oreodon.)

Zittel, K. A. 1893 B, p. 353. (Oreodon.)

Oligocene (White River); South Dakota, Nebraska, Colorado.

Merycoidodon hybridus (Leidy).

Leidy, J. 1869 A, pp. 105, 380, pl. ix, fig. 4. (Oreodon.)

1871 C, p. 346. (Oreodon.)

1873 B, p. 212. (Oreodon.)

Roger, O. 1896 A, p. 213.

Trouessart, E. L. 1898 A, p. 835.

Oligocene (White River); South Dakota.

Merycoidodon minor Cope.

Cope, E. D. 1888 X, p. 1094. (Name only.)

Wortman, J. L. 1893 A.

Zittel, K. A. 1893 B, pp. 352, 355.

Eucrotaphus jacksoni Leidy.

Leidy, J. 1850 A, p. 90.

Cope, E. D. 1884 M, pp. 514, 517 (E. jacksoni); p. 519 (subsp. *leptacanthus*).

Leidy, J. 1852 L, p. 65.

1854 A, pp. 56, 113, pl. vii, figs. 4-6.

1869 A, pp. 134, 381.

Lydekker, R. 1877 A, p. 334. (Eporeodon.)

Roger, O. 1896 A, p. 213. (Oreodon.)

Scott, W. B. 1890 B, p. 372, fig. x, 2. (Oreodon.)

Trouessart, E. L. 1898 A, p. 836.

Oligocene (White River); South Dakota.

EPOREODON Marsh. Type *Oreodon occidentalis* Marsh.

- Marsh, O. C. 1875 B, p. 249.
 Lydekker, R. 1885 C, p. 208.
 Marsh, O. C. 1877 E, p. 365.
 Nicholson and Lydekker 1889 A, p. 1327.
 Osborn and Wortman 1894 A, p. 218.
 Schlosser, M. 1886 B, p. 47.
 Scott, W. B. 1890 B, p. 339.
 1895 C, p. 125.
 Trouessart, E. L. 1898 A, p. 836. (Syn. of *Eucrotaphus*.)
 Zittel, K. A. 1893 B, p. 355.

Epureodon longifrons (Cope).

- Cope, E. D. 1884 M, pp. 519, 520. (*Eucrotaphus major longifrons*.)
 Matthew, W. D. 1899 A, p. 64. (*Epureodon major*, var. *longifrons*.)
 Miocene (John Day); Oregon.

Epureodon? major (Leidy).

- Leidy, J. 1854 A, p. 55, pl. iv, fig. 6. (*Oreodon*, *Merycoidodon*.)
 Cope, E. D. 1884 M, pp. 519, 520. (*Eucrotaphus*.)
 1884 T, p. 281. (*Eucrotaphus*.)
 Hayden, F. V. 1858 B, p. 157. (*Oreodon*.)
 King, C. 1878 A, p. 411.
 Leidy, J. 1858 D. (*Oreodon*, no description.)
 1854 E. (Syn. of *Oreodon culbertsoni*.)
 1856 J, p. 164. (*Oreodon*.)
 1869 A, pp. 99, 380, pl. vii, fig. 1; pl. viii. (*Oreodon*.)
 1871 C, p. 346. (*Oreodon*.)
 Marsh, O. C. 1875 B, p. 250.
 1897 C, p. 524, fig. 98.
 Matthew, W. D. 1899 A, p. 60, 64.
 Osborn and Wortman 1894 A, p. 218, fig. 5, D.
 Roger, O. 1896 A, p. 213.
 Scott, W. B. 1890 B, p. 339.
 Scott and Osborn 1887 B, p. 155. (*Eucrotaphus*.)
 Trouessart, E. L. 1898 A, p. 836. (*Eucrotaphus*.)
 Oligocene (White River); South Dakota, North Dakota, Colorado, Nebraska.

Epureodon occidentalis Marsh.

- Marsh, O. C. 1873 H, p. 409. (*Oreodon*.)
 Cope, E. D. 1879 B, p. 59. (*Eucrotaphus*.)
 1884 M, p. 517. (Syn. of *Eucrotaphus jacksoni*.)
 King, C. 1878 A, p. 424.
 Leidy, J. 1873 B, p. 318 (Syn.? of *Oreodon bullatus*); ?pl. vii, fig. 12 (*Oreodon culbertsoni*.)
 Marsh, O. C. 1875 B, p. 250.
 1884 F, figs. 73, 162, 163.
 Matthew, W. D. 1899 A, p. 64.
 Trouessart, E. L. 1898 A, p. 836. (Syn. of *Eucrotaphus jacksoni*.)
 Miocene (John Day); Oregon.

Epureodon pacificus (Cope).

- Cope, E. D. 1884 M, p. 519. (*Eucrotaphus jacksoni pacificus*.)
 1884 H, p. 23. (*Eucrotaphus*.)
 1885 B, p. 484. (*Eucrotaphus*.)
 1888 X, p. 1094. (*Eucrotaphus*.)
 Matthew, W. D. 1899 A, p. 61. (*E. occidentalis* var. *pacificus*.)
 Trouessart, E. L. 1898 A, p. 836. (*Eucrotaphus*.)
 Miocene (John Day); Oregon.

Epureodon socialis Marsh.

- Marsh, O. C. 1885 B, figs. 128, 129.
 Matthew, W. D. 1899 A, p. 64.
 Roger, O. 1896 A, p. 213.
 Miocene (John Day); Oregon.

Epureodon trigonocephalus (Cope).

- Cope, E. D. 1884 M, p. 514. (*Eucrotaphus*.)
 1884 T, p. 281. (*Eucrotaphus*.)
 Matthew, W. D. 1899 A, p. 64.
 Roger, O. 1896 A, p. 213.
 Trouessart, E. L. 1898 A, p. 836. (*Eucrotaphus*.)
 Miocene (John Day); Oregon.

MESOREODON Scott. Type *M. chelonys* Scott.

- Scott, W. B. 1893 B, p. 661.
 1895 C, pp. 125, 164.

Mesoreodon chelonys Scott.

- Scott, W. B. 1893 B, p. 661.
 Matthew, W. D. 1899 A, p. 60.
 Roger, O. 1896 A, p. 214.
 Scott, W. B. 1895 C, p. 125, pl. iii, fig. 29; pl. iv, figs. 32-34; pl. v, figs. 35-42; pl. vi, figs. 46, 47.
 Trouessart, E. L. 1898 A, p. 836.
 Miocene (Deep River); Montana.

Mesoreodon intermedius Scott.

- Scott, W. B. 1893 B, p. 661.
 Matthew, W. D. 1899 A, p. 60.
 Roger, O. 1896 A, p. 214.
 Scott, W. B. 1895 C, p. 145, pl. v, figs. 43, 44.
 Trouessart, E. L. 1898 A, p. 836.
 Miocene (Deep River); Montana.

MERYCOCHERUS Leidy. Type *M. proprius* Leidy.

- Leidy, J. 1858 E, p. 24.
 Bettany, G. T. 1876 A.
 Cope, E. D. 1884 H, p. 23.
 1884 M, pp. 504, 520.
 1884 T.

- Cope, E. D. 1885 B, p. 484.
 1888 X, p. 1093.
 1889 C.
 1889 G, p. 113.
 Leidy, J. 1869 A, p. 110.

Leidy, J. 1870 P, p. 111.

1871 C, p. 347.

1873 B, pp. 199, 202.

Marsh, O. C. 1877 E.

Nicholson and Lydekker 1889 A, p. 1327.

Osborn, H. F. 1901 A, p. 46.

Scott, W. B. 1889 C, p. 75.

1890 B, p. 340.

1891 D, p. 90.

1892 A, p. 435.

1894 E.

1896 C, p. 165.

Scott and Osborn 1890 B, p. 73.

Steinmann and Döderlein 1890 A, p. 800.

Trouessart, E. L. 1898 A, p. 837.

Zittel, K. A. 1893 B, p. 355.

***Merycochoerus chelydra* Cope.**

Cope, E. D. 1884 M, pp. 521, 523.

1884 T, p. 281.

Matthew, W. D. 1899 A, p. 64.

Roger, O. 1896 A, p. 214.

Trouessart, E. L. 1898 A, p. 838.

Miocene (John Day); Oregon.

***Merycochoerus cœnopus* Scott.**

Scott, W. B. 1890 B, p. 346, pl. xvi, figs. 33, 34.

Matthew, W. D. 1899 A, p. 72. (M. cœnopus.)

Roger, O. 1896 A, p. 214.

Scott and Osborn 1890 B, p. 73. (M. cœnopus.)

Trouessart, E. L. 1898 A, p. 838.

Miocene (Loup Fork); Nebraska.

***Merycochoerus laticeps* Douglass.**

Douglass, E. 1900 B, p. 428 figs. 1-3.

Miocene (Loup Fork); Montana.

***Merycochoerus leidyi* Bettany.**

Bettany, G. T. 1876 A, p. 270, pl. xviii.

Cope, E. D. 1879 B, p. 59.

1884 M, pp. 521, 523.

Matthew, W. D. 1899 A, p. 64.

Roger, O. 1896 A, p. 214.

Trouessart, E. L. 1898 A, p. 838.

Miocene (John Day); Oregon.

***Merycochoerus macrostegus* Cope.**

Cope, E. D. 1884 M, pp. 521, 526.

1884 T, p. 281.

Matthew, W. D. 1899 A, p. 64.

Roger, O. 1896 A, p. 214.

Scott, W. B. 1890 B, pl. xiv, figs. 8, 9.

Trouessart, E. L. 1898 A, p. 838.

Miocene (John Day); Oregon.

***Merycochoerus montanus* Cope.**

Cope, E. D. 1884 M, pp. 521, 531.

1884 H, p. 23.

1884 T, p. 282.

1885 B, p. 484.

1886 B, p. 359.

1886 H.

1889 G, p. 113, fig. 9.

1895 C, p. 151.

Matthew, W. D. 1899 A, p. 72.

Roger, O. 1896 A, p. 214.

Scott, W. B. 1890 B, p. 342, text figs. v, vi.

1893 B, p. 659.

Trouessart, E. L. 1898 A, p. 838.

Miocene (Loup Fork); Montana.

***Merycochoerus obliquidens* Cope.**

Cope, E. D. 1886 H, p. 348.

1886 B, p. 359.

Matthew, W. D. 1899 A, p. 72.

Roger, O. 1896 A, p. 214.

Trouessart, E. L. 1898 A, p. 838.

Miocene (Loup Fork); Oregon.

***Merycochoerus proprius* Leidy.**

Leidy, J. 1858 E, p. 24.

Cope, E. D. 1884 M, pp. 521, 535.

1884 T, p. 282.

Hayden, F. V. 1858 B, p. 157.

King, C. 1878 A, p. 411.

Leidy, J. 1869 A, pp. 110, 380, pl. x.

1870 O, p. 109.

1871 C, p. 347.

1873 B, p. 201.

Matthew, W. D. 1899 A, p. 72.

Trouessart, E. L. 1898 A, p. 838.

Miocene (Loup Fork); Wyoming.

***Merycochoerus rusticus* Leidy.**

Leidy, J. 1870 O, p. 109.

Cope, E. D. 1884 M, pp. 521, 535.

1884 T, p. 282.

Leidy, J. 1871 C, p. 347.

1873 B, pp. 199, 319, pl. iii, figs. 1-3; pl. vii,

figs. 1-5; pl. xx, figs. 9-11.

Matthew, W. D. 1899 A, p. 72.

Roger, O. 1896 A, p. 214.

Scott, W. B. 1890 B, pp. 341, 348. (Merychys.)

Trouessart, E. L. 1898 A, p. 838.

Miocene (Loup Fork); Wyoming.

***Merycochoerus superbus* (Leidy).**

Leidy, J. 1870 P, p. 111. (Oreodon.)

Bettany, G. T. 1876 A, p. 269, pl. xvii. (M. temporalis.)

Cope, E. D. 1879 B, p. 59. (Eucrotaphus.)

1884 M, pp. 521, 522.

1884 T, p. 281.

1888 X, p. 1094, pl. xxvi.

King, C. 1878 A, p. 424. (Eporeodon.)

Leidy, J. 1871 C, p. 346. (Oreodon.)

1873 B, pp. 211, 319, pl. i, fig. 1; pl. ii, fig. 16;

pl. vii, figs. 7-11. (Oreodon.)

Marsh, O. C. 1875 B, p. 250. (Eporeodon.)

Matthew, W. D. 1899 A, p. 64.

Roger, O. 1896 A, p. 214.

Scott, W. B. 1890 B, p. 339, pl. xiv, fig. 10.

Trouessart, E. L. 1898 A, p. 838.

Miocene (John Day); Oregon.

***Merycochoerus* sp. indet.**

Leidy, J. 1873 B, p. 208, pl. xx, figs. 9-11.

MERYCHYUS Leidy. Type *M. elegans* Leidy.

Leidy, J. 1858 E, p. 25.

Bettany, G. T. 1876 A.

Cope, E. D. 1878 H, p. 380. (Ticholeptus, type *T. zygomaticus*.)

1878 P. (Ticholeptus.)

1884 M, pp. 504, 535.

1884 T.

1885 B, p. 484.

1887 B, p. 386.

1887 S, p. 85.

1888 X, p. 1093.

Dawkins, W. B. 1870 A, p. 232.

Hayden, F. V. 1858 B, p. 157.

Leidy, J. 1869 A, p. 115.

1871 C, p. 347.

1873 B, pp. 202, 213.

Marsh, O. C. 1877 E.

Nicholson and Lydekker 1889 A, p. 1327.

Scott, W. B. 1889 C, p. 75.

1890 B, p. 347, pl. xiv, fig. 36.

1891 A, p. 53.

1891 D, p. 90.

1892 A, p. 435.

1895 C, p. 165.

Steinmann and Döderlein 1890 A, p. 800.

Trouessart, E. L. 1898 A, p. 837.

Zittel, K. A. 1893 B, p. 355.

Merychys arenarum Cope.

Cope, E. D. 1884 M, pp. 536, 537, 540. (With subsp. *leptorhynchus*.)

1884 H, p. 23.

1884 T, p. 282.

1885 B, p. 484.

1888 X, p. 1080, pl. xxvi.

Matthew, W. D. 1899 A, p. 72.

Roger, O. 1896 A, p. 214.

Scott, W. B. 1890 B, pl. xiii, fig. 7; pl. xvi, figs. 30-32.

Trouessart, E. L. 1898 A, p. 837.

Miocene (Loup Fork); Wyoming.

Merychys elegans Leidy.

Leidy, J. 1858 E, p. 24.

Bettany, G. T. 1876 A.

Cope, E. D. 1874 B, p. 529.

1874 P, p. 19.

1884 M, pp. 536, 545.

1884 T, p. 282.

King, C. 1878 A, p. 430.

Leidy, J. 1869 A, pp. 118, 380, pl. xi, figs. 1-11.

1871 C, p. 348.

1873 B, p. 201.

Matthew, W. D. 1899 A, p. 72.

Roger, O. 1896 A, p. 214.

Scott and Osborn 1890 B, p. 72.

Trouessart, E. L. 1898 A, p. 837.

Miocene (Loup Fork); Nebraska.

Merychys major Leidy.

Leidy, J. 1858 E, p. 26.

Cope, E. D. 1874 B, p. 529.

1874 P, p. 19.

Cope, E. D. 1884 M, pp. 536, 545.

1884 T, p. 282.

Hayden, F. V. 1858 B, p. 157.

Leidy, J. 1869 A, pp. 121, 380, pl. xi, figs. 15, 16.

1870 O, p. 109.

1871 C, p. 348.

1873 B, p. 201.

Matthew, W. D. 1899 A, p. 72.

Roger, O. 1896 A, p. 214.

Trouessart, E. L. 1898 A, p. 837.

Zittel, K. A. 1893 B, p. 355.

Miocene (Loup Fork); Nebraska, Colorado.

Merychys medius Leidy.

Leidy, J. 1858 E, p. 26.

Cope, E. D. 1875 F, p. 70.

1877 K, p. 324.

1884 M, pp. 536, 545.

1884 T, p. 282.

Dawkins, W. B. 1870 A, p. 232.

Hayden, F. V. 1858 B, p. 157.

Leidy, J. 1869 A, pp. 119, 121, 380, pl. xi, figs. 12-14.

1870 O, p. 109.

1871 C, p. 348.

1873 B, p. 201.

Matthew, W. D. 1899 A, p. 72.

Roger, O. 1896 A, p. 214.

Trouessart, E. L. 1898 A, p. 837.

Miocene (Loup Fork); Nebraska, New Mexico, Colorado.

Merychys pariogonus Cope.

Cope, E. D. 1884 M, pp. 536, 542.

1884 T, p. 282.

1886 B, p. 359.

1886 H.

Matthew, W. D. 1899 A, p. 72.

Roger, O. 1896 A, p. 214.

Scott, W. B. 1893 B, p. 659.

1895 C, p. 148.

Trouessart, E. L. 1898 A, p. 837.

Miocene (Loup Fork); Wyoming, Montana.

Merychys zygomaticus Cope.

Cope, E. D. 1878 P, p. 129. (Ticholeptus.)

1878 H, p. 390. (Ticholeptus.)

1884 M, pp. 536, 545.

1884 T, p. 282.

1886 B, p. 359.

1886 H.

Matthew, W. D. 1899 A, p. 72.

Roger, O. 1896 A, p. 214.

Scott, W. B. 1893 B, p. 659.

1895 C, p. 146, pl. v, fig. 45.

Trouessart, E. L. 1898 A, p. 837.

Miocene (Loup Fork); Montana.

Dr. W. D. Matthew (1899 A, p. 72) has attributed to Cope a species, *Merychys euryops*, but search has failed to discover the name in any of Cope's papers. It is probably a manuscript name only.

LEPTAUCHENIA Leidy. Type *L. decora* Leidy.*Leidy, J.* 1856 I, p. 88.

Cope, E. D. 1884 M, pp. 504, 546.

1887 B, p. 346.

1888 X, p. 1093.

Leidy, J. 1858 E, p. 25.

1869 A, p. 122.

1871 C, p. 348.

Matthew, W. D. 1899 A, p. 24.

Nicholson and Lydekker 1889 A, p. 1327.

Schlosser, M. 1896 B, p. 49.

Scott, W. B. 1890 B, p. 353.

1892 A, p. 435.

1895 C, p. 166.

1899 A, p. 96.

Trouessart, E. L. 1898 A, p. 838.

Zittel, K. A. 1893 B, p. 355.

Leptauchenia decora Leidy.*Leidy, J.* 1856 I, p. 88.

Cope, E. D. 1884 M, p. 546.

Hayden, F. V. 1858 B, p. 157.

Leidy, J. 1869 A, pp. 127, 381, pl. xii, figs. 21, 22.

1871 C, p. 348.

Matthew, W. D. 1899 A, p. 61.

Roger, O. 1896 A, p. 215.

Trouessart, E. L. 1898 A, p. 838.

Oligocene (White River); South Dakota, Colorado.

CYCLOPIDIUS Cope.

Cope, E. D. 1878 C, p. 221.1878 C, p. 219 (Pitheciestis, type *P. brevifacies*); p. 220 (Brachymeryx, type *B. feliceps* = *Cyclopidius simus*, juv.).

1878 L. (Cyclopidius, Brachymeryx, Pitheciestis.)

1884 M, pp. 504, 546 (Cyclopidius); pp. 504, 557 (Pitheciestis).

1884 T.

1886 B, p. 359.

1887 B, p. 346. (Cyclopidius, Pitheciestis.)

1888 X, p. 1093. (Cyclopidius, Pitheciestis.)

Matthew, W. D. 1899 A, pp. 24, 73.

Nicholson and Lydekker 1889 A, p. 1327. (Cyclopidius, Pitheciestis.)

Scott, W. B. 1890 B, p. 356 (Cyclopidius); p. 357 (Pitheciestis).

1891 B, p. 370. (Pitheciestis.)

1891 D, p. 90. (Cyclopidius, Pitheciestis.)

1892 A, p. 435. (Cyclopidius, Pitheciestis.)

1895 C, p. 162 (Cyclopidius); p. 164 (Pitheciestis).

Steinmann and Döderlein 1890 A, p. 800.

Zittel, K. A. 1893 B, p. 356. (Cyclopidius, Pitheciestis.)

Cyclopidius brevifacies (Cope).*Cope, E. D.* 1878 C, p. 219. (Pitheciestis.)

1884 M, p. 558. (Pitheciestis.)

1884 T, p. 212. (Pitheciestis.)

1886 B, p. 359. (Pitheciestis.)

1886 H. (Pitheciestis.)

Matthew, W. D. 1899 A, p. 73. (Cyclopidius.)

Roger, O. 1896 A, p. 215. (Pitheciestis.)

Leptauchenia major Leidy.*Leidy, J.* 1856 J, p. 163.

Cope, E. D. 1884 M, p. 546.

Hayden, F. V. 1858 B, p. 157.

King, C. 1878 A, p. 411.

Leidy, J. 1869 A, pp. 124, 380, pl. xii, figs. 1-5.

1871 C, p. 348.

Matthew, W. D. 1899 A, p. 61.

Roger, O. 1896 A, p. 215.

Scott, W. B. 1890 B, pl. xv, figs. 15, 16.

Trouessart, E. L. 1898 A, p. 838.

Oligocene (White River); South Dakota.

Leptauchenia nitida Leidy.*Leidy, J.* 1869 A, pp. 129, 381, pl. xii, figs. 21, 22.

Cope, E. D. 1884 M, p. 546.

1884 T, p. 282.

Leidy, J. 1871 C, p. 348.

Matthew, W. D. 1899 A, p. 61.

Roger, O. 1896 A, p. 215.

Scott, W. B. 1890 B, pl. xvi, fig. 35.

Trouessart, E. L. 1898 A, p. 838.

Oligocene (White River); South Dakota.

Type *C. simus* Cope.

Scott, W. B. 1890 B, pl. xv, figs. 20, 21. (Pitheciestis.)

1893 B, p. 659. (Pitheciestis.)

Trouessart, E. L. 1898 A, p. 839. (Pitheciestis.)

Miocene (Loup Fork); Montana.

Cyclopidius decedens (Cope).*Cope, E. D.* 1884 M, p. 558. (Pitheciestis.)

1884 T, p. 282. (Pitheciestis.)

1886 B, p. 359. (Pitheciestis.)

1886 H. (Pitheciestis.)

Matthew, W. D. 1899 A, p. 73. (Cyclopidius.)

Roger, O. 1896 A, p. 215. (Pitheciestis.)

Scott, W. B. 1893 B, p. 659. (Pitheciestis.)

Trouessart, E. L. 1898 A, p. 839. (Pitheciestis.)

Miocene (Loup Fork); Montana.

Cyclopidius emydinus Cope.*Cope, E. D.* 1884 M, p. 553.

1884 T, p. 282.

1886 B, p. 359.

1886 H.

1888 X, pl. xxviii.

Roger, O. 1896 A, p. 215.

Scott, W. B. 1890 B, pl. xv, figs. 17-19.

1893 B, p. 659.

Trouessart, E. L. 1898 A, p. 839.

Zittel, K. A. 1893 B, p. 356, fig. 291.

Miocene (Deep River); Montana.

Cyclopidius heterodon Cope.*Cope, E. D.* 1878 C, p. 222. (Cyclopidius.)

1884 M, p. 559. (Pitheciestis.)

1884 T, p. 282. (Pitheciestis.)

- Cope, E. D. 1886 B, p. 359. (Pitheciastes.)
 1886 H. (Pitheciastes.)
 Matthew, W. D. 1899 A, p. 73. (Cyclopidius.)
 Roger, O. 1896 A, p. 215. (Pitheciastes.)
 Scott, W. B. 1893 B, p. 659. (Pitheciastes.)
 Trouessart, E. L. 1898 A, p. 839. (Pitheciastes.)
 Miocene (Loup Fork); Montana.

Cyclopidius incisivus Scott.

- Scott, W. B. 1893 B, p. 659.
 Matthew, W. D. 1899 A, p. 73.
 Roger, O. 1896 A, p. 215.
 Scott, W. B. 1895 C, p. 163.

- Trouessart, E. L. 1898 A, p. 839.
 Miocene (Loup Fork); Montana.

Cyclopidius simus Cope.

- Cope, E. D. 1878 C, p. 221.
 1878 C, p. 220. (Brachymeryx feliceps.)
 1884 M, p. 547.
 1884 T, p. 282.
 1886 H.
 Roger, O. 1896 A, p. 215.
 Scott, W. B. 1893 B, p. 659.
 Trouessart, E. L. 1898 A, p. 839.
 Miocene (Deep River); Montana.

HADROHYUS Leidy. Type *H. supremus* Leidy.

- Leidy, J. 1871 M, p. 248.
 1873 B, p. 222.
 A genus of uncertain position; founded on unsatisfactory material.

Hadrohyus supremus Leidy.

- Leidy, J. 1871 M, p. 248.
 1873 B, pp. 222, 331, pl. xvii, fig. 26.
 Miocene; Oregon.

LEPTOMERYCINÆ.

- Cope, E. D. 1879 B, p. 66. (Hypertragulidæ, in part.)
 1889 G, p. 121. (Hypisodontidæ.)
 Roger, O. 1896 A, p. 226.

- Scott, W. B. 1899 A, p. 15. (Leptomerycidæ.)
 Trouessart, E. L. 1898 A, p. 863.
 Zittel, K. A. 1893 B, p. 389.

LEPTOMERYX Leidy. Type *L. evansi* Leidy.

- Leidy, J. 1853 D, p. 394.
 Cope, E. D. 1873 T, p. 8. (Trimerodus, type *T. cedrensis*.)
 1874 E, p. 110.
 1874 P, p. 26.
 1879 A, p. 44.
 1884 H, p. 23.
 1884 DD.
 1885 B, p. 484.
 1887 B, p. 389.
 1889 G, p. 121.
 Farr, M. S. 1896 A, p. 163.
 Flower and Lydekker 1891 A, p. 307.
 Leidy, J. 1869 A, p. 165.
 1871 C, p. 351.
 Lydekker, R. 1887 A, p. 332.
 Nicholson and Lydekker 1889 A, p. 1333.
 Osborn and Wortman 1892 B.
 Rüttemeyer, L. 1883 A, p. 98.
 Scott, W. B. 1891 A, p. 3.
 1891 B, p. 342.
 1891 C, p. 63.
 1892 A, p. 436.
 1895 A.
 1898 C, p. 77.
 1899 A, pp. 15-111.
 Steinmann and Döderlein 1890 A, p. 802.
 Wortman, J. L. 1893 A.
 Zittel, K. A. 1893 B, p. 389.

Leptomeryx esulcatus Cope.

- Cope, E. D. 1889 I, p. 154.
 1891 A, p. 22, pl. xiv, fig. 5.
 Matthew, W. D. 1899 A, p. 61.
 Roger, O. 1896 A, p. 226.
 Trouessart, E. L. 1898 A, p. 863.
 Oligocene (White River); Canada.

Leptomeryx evansi Leidy.

- Leidy, J. 1853 D, p. 394.
 Cope, E. D. 1873 T, p. 8. (Trimerodus *cedrensis*.)
 1873 CC, p. 14. (Trimerodus *cedrensis*.)
 1874 B, pp. 464, 503.
 1874 P, p. 27.
 1879 B, p. 66.
 1879 D, p. 63.
 1884 H, p. 23.
 1885 B, p. 484.
 1889 G, p. 122.
 Hayden, F. V. 1858 B, p. 157.
 King, C. 1878 A, p. 411.
 Leidy, J. 1854 E, p. 157.
 1857 D, p. 176. (Dorcatherium.)
 1869 A, pp. 165, 383, pl. xiv, figs. 1-8.
 1870 P, p. 112.
 1871 C, p. 351.
 1873 B, pp. 216, 317. (Except John Day specimens.)
 Lydekker, R. 1887 A, p. 333.
 Major, For. 1873 A, p. 105.
 Matthew, W. D. 1899 A, p. 61.
 Roger, O. 1896 A, p. 226.
 Scott, W. B. 1891 B, p. 343, figs. D-I.
 1891 A, p. 15, pl. i, figs. 1, 2.
 Scott and Osborn 1887 B, p. 156.
 Trouessart, E. L. 1898 A, p. 863.
 Oligocene (White River); South Dakota, Colorado, Nebraska.

Leptomeryx mammifer Cope.

- Cope, E. D. 1886 U, p. 84.
 Ami, H. M. 1891 A.
 Cope, E. D. 1885 H, p. 163. (No description.)
 1839 I, p. 154.

Cope, E. D. 1891 A, p. 22, pl. xiv, figs. 6, 7.

Matthew, W. D. 1899 A, p. 61.

Roger, O. 1896 A, p. 226.

Trouessart, E. L. 1898 A, p. 863.

Oligocene (White River); Canada, Colorado.

Leptomeryx semicinctus Cope.

Cope, E. D. 1889 I, p. 154.

1891 A, p. 23, pl. xiv, fig. 8.

Matthew, W. D. 1899 A, p. 61.

Roger, O. 1896 A, p. 226.

Trouessart, E. L. 1898 A, p. 863.

Oligocene (White River); Canada.

HYPISODUS Cope. Type *H. ringens* Cope.

Cope, E. D. 1873 CC, p. 5.

1873 R, p. 419.

1874 B, p. 501.

1874 E.

1881 H, p. 25.

1884 DD, p. 1036.

1885 B, p. 486.

1887 B, p. 389.

1889 G, p. 121.

Scott, W. B. 1891 B, p. 351.

1899 A, pp. 19, 112.

Zittel, K. A. 1893 B, p. 389.

Hypisodus minimus Cope.

Cope, E. D. 1873 T, p. 8. (*Leptauchenia*.)

Cope, E. D. 1873 R, p. 419.

1873 CC, p. 7 (*H. ringens*): p. 14 (*Leptauchenia minima*.)

1874 B, p. 501. (*H. minimus*, with *H. cingens* as synonym.)

1874 P, p. 26.

1884 H, p. 25.

1885 B, p. 486.

1889 G, p. 122.

Matthew, W. D. 1899 A, p. 61.

Roger, O. 1896 A, p. 226.

Scott and Osborn 1887 B, p. 157.

Trouessart, E. L. 1898 A, p. 863. (With *H. cingens* as synonym.)

Oligocene (White River); Colorado.

OMERYX Marsh. Type *O. plicatus* Marsh.

Marsh, O. C. 1894 L, p. 269.

Cope, E. D. 1894 E, p. 869.

Marsh, O. C. 1877 E, p. 364. (Insufficient definition: no species.)

Scott, W. B. 1898 C, pp. 77, 78.

1899 A, pp. 83, 114.

Scott and Osborn 1887 A, p. 259. (Name only.)

Zittel, K. A. 1893 B, p. 361.

Oromeryx plicatus Marsh.

Marsh, O. C. 1894 L, p. 269, fig. 23.

Matthew, W. D. 1899 A, p. 50.

Roger, O. 1896 A, p. 215.

Trouessart, E. L. 1898 A, p. 839.

Eocene (Uinta); Utah.

CAMELOMERYX Scott. Type *C. longiceps* Scott.

Scott, W. B. 1898 C, p. 77.

1899 A, pp. 67, 82, 114.

Camelomeryx longiceps Scott.

Scott, W. B. 1898 C, p. 78.

Matthew, W. D. 1899 A, p. 50.

Scott, W. B. 1899 A, p. 67, pl. iii, figs. 15-18.

Wortman, J. L. 1898 A, p. 97. (*Bunomeryx montanus*, in part.)

Eocene (Uinta); Wyoming.

LEPTOREODON Wort. Type *L. marshi* Wort.

Wortman, J. L. 1898 A, p. 95.

Scott, W. B. 1898 C, p. 75. (*Merycodesmus*, type *M. gracilis* Scott.)

1899 A, pp. 51, 64, 113.

Leptoreodon gracilis Scott.

Scott, W. B. 1898 C, p. 76. (*Merycodesmus*.)

Matthew, W. D. 1899 A, p. 50. (Syn. of *L. marshi*.)

Scott, W. B. 1899 A, pp. 52, 67, pl. ii, figs. 10-14.

Eocene (Uinta); Utah.

Leptoreodon marshi Wort.

Wortman, J. L. 1898 A, p. 95, fig. 1.

Matthew, W. D. 1899 A, p. 50.

Scott, W. B. 1899 A, pp. 52, 67.

Trouessart, E. L. 1899 A, p. 1348.

Eocene (Uinta); Utah.

STIBARUS Cope. Type *S. obtusilobus* Cope.

Cope, E. D. 1873 T, p. 3.

1874 B, p. 503.

1886 C, pp. 614, 619.

1893 G, p. 148.

Zittel, K. A. 1893 B, p. 361.

The systematic position of this genus is doubtful.

Stibarus obtusilobus Cope.

Cope, E. D. 1873 T, p. 3.

Cope, E. D. 1873 CC, p. 9.

1874 B, p. 503.

1886 C, p. 618. ("Stibarus.")

Matthew, W. D. 1899 A, p. 61.

Roger, O. 1896 A, p. 215.

Trouessart, E. L. 1898 A, p. 840.

Oligocene (White River); Colorado.

PROTOCERATINÆ.

- Zittel, K. A. 1893 B, p. 405.
 Lydekker, R. 1896 B, p. 376. (Protoceratidæ.)
 Marsh, O. C. 1891 A, p. 82. (Protoceratidæ.)
 1897 D, p. 165. (Protoceratidæ.)
 Osborn, H. F. 1892 B, p. 353. (Protoceratidæ.)

- Osborn, H. F. 1898 I, p. 322. (Protoceratidæ.)
 Roger, O. 1896 A, p. 237.
 Scott, W. B. 1899 A, p. 19.
 Woodward, A. S. 1898 B, p. 361. (Protoceratidæ.)

PROTOCERAS Marsh. Type *P. celer* Marsh.

- Marsh, O. C. 1891 A, p. 81.
 Cope, E. D. 1893 G, p. 147.
 Lydekker, R. 1896 B, p. 376.
 Marsh, O. C. 1897 D, p. 165.
 Osborn, H. F. 1893 D, p. 42.
 1893 E.
 1893 I, p. 321.
 Osborn and Wortman 1892 B, p. 351.
 Scott, W. B. 1896 A.
 1898 C, p. 77.
 1899 A, pp. 19-112.
 Woodward, A. S. 1898 B, p. 362.
 Wortman, J. L. 1893 A.
 1898 A, p. 99.
 Zittel, K. A. 1893 B, p. 405.

Protoceras celer Marsh.

- Marsh, O. C. 1891 A, p. 81.
 Cope, E. D. 1893 G, p. 147, pls. i, ii.
 Dean, B. 1893 A.
 Marsh, O. C. 1893 D, p. 407, pl. vii.
 1897 D, p. 169, pls. ii-v; pl. vi, fig. 1; pl. vii, figs. 3, 4; text figs. 4, 6, 7.
 Matthew, W. D. 1899 A, p. 61.

- Osborn, H. F. 1893 I, p. 321, figs. 1-3.
 1893 L, p. 128.
 1896 C, pp. 712, 715, illus. 8.
 1898 Q, p. 16.
 Osborn and Wortman 1892 B, pp. 353-371, figs. 1-6.
 Roger, O. 1896 A, p. 236.
 Scott, W. B. 1896 A, pls. xx-xxii.
 Trouessart, E. L. 1898 A, p. 864.
 Woodward, A. S. 1898 B, p. 362, fig. 206.
 Zittel, K. A. 1893 B, p. 406, fig. 388.
 Oligocene (White River); South Dakota.

Protoceras comptus Marsh.

- Marsh, O. C. 1894 F, p. 93.
 1897 D, p. 172, pl. vi, fig. 2.
 Matthew, W. D. 1899 A, p. 61.
 Roger, O. 1896 A, p. 237.
 Trouessart, E. L. 1898 A, p. 864.
 Oligocene (White River); South Dakota.

Protoceras nasutus Marsh.

- Marsh, O. C. 1897 D, p. 168, fig. 5.
 Matthew, W. D. 1899 A, p. 61.
 Oligocene (White River); South Dakota.

CALOPS Marsh. Type *C. cristatus* Marsh.

- Marsh, O. C. 1894 F, p. 94.
 1897 D, p. 174.

Calops consors Marsh.

- Marsh, O. C. 1897 D, p. 175, pl. vii, figs. 1, 2.
 Matthew, W. D. 1899 A, p. 61.
 Oligocene (White River); South Dakota.

Calops cristatus Marsh.

- Marsh, O. C. 1894 F, p. 94.
 1894 L, p. 273.
 Matthew, W. D. 1899 A, p. 61.
 Roger, O. 1896 A, p. 237.
 Trouessart, E. L. 1898 A, p. 864.
 Oligocene (White River); South Dakota.

CAMELIDÆ.

- Ameghino, F. 1889 A, p. 579.
 Baur, G. 1885 I, p. 196.
 Branco, W. 1897 A, p. 24.
 Cope, E. D. 1874 B, p. 464.
 1874 M.
 1875 Q.
 1876 G, p. 146.
 1877 K, p. 342.
 1881 J, p. 546.
 1884 G, p. 16.
 1884 H, p. 26.
 1886 C.
 1887 B, pp. 379, 391.
 1887 S, p. 222.
 1888 X, p. 1080.
 1889 C.
 1890 G, p. 119.
 Flower, W. H. 1876 B, xiii, p. 328.
 Flower and Lydekker 1891 A, p. 295.
 Gill, T. 1872 B, p. 71.
 Huxley, T. H. 1872 A, p. 328.
 Leidy, J. 1871 C, p. 349.

- Lydekker, R. 1885 C, p. 139.
 1896 B, p. 163.
 Marsh, O. C. 1877 E.
 Matthew, W. D. 1899 A, p. 22, *et seq.*
 Nicholson and Lydekker 1889 A, p. 1334.
 Osborn, H. F. 1900 C, p. 568.
 Owen, R. 1845 B, p. 528.
 1868 A, p. 349.
 1870 C.
 Roger, O. 1896 A, p. 215.
 Rüttimeyer, L. 1877 A.
 1878 A, p. 19.
 1883 A, p. 9. (Camelina.)
 Schmidt, O. 1886 A, p. 154.
 Scott, W. B. 1891 A.
 1899 A, pp. 22, 116.
 Steinmann and Döderlein 1890 A, p. 800.
 Tornier, G. 1888 A.
 Wilckens, M. 1845 C.
 Wortman, J. L. 1898 A.
 Zilliken, J. E. 1879 A.
 Zittel, K. A. 1893 B, p. 357.

LEPTOTRAGULINÆ.

Cope, E. D. 1879 B, p. 66. (*Hypertragulidæ*, in part.)
 Roger, O. 1896 A, p. 215.

Trouessart, E. L. 1898 A, p. 839.
 Zittel, K. A. 1893 B, p. 361.

LEPTOTRAGULUS Scott and Osb.

Type *L. proavus* Scott and Osb.

Scott and Osborn 1887 A, p. 258.
 Cope, E. D. 1889 G, p. 119.
 1890 C, p. 471.
 1894 E, p. 869.
 Flower and Lydekker 1891 A, p. 304.
 Nicholson and Lydekker 1889 A, p. 1334.
 Osborn, H. F. 1893 D, p. 42.
 Scott, W. B. 1890 A, p. 479.
 1891 A, pp. 10, 47.
 1892 A, p. 435.
 1898 C, p. 75.
 1899 A, pp. 47, 113.
 Steinhmann and Döderlein 1890 A, p. 800.
 Trouessart, E. L. 1898 A, p. 840.

Wortman, J. L. 1898 A, p. 103. (*Parameryx*, in part.)
 Zittel, K. A. 1893 B, p. 361.

Leptotragulus proavus Scott and Osb.

Scott and Osborn 1887 A, p. 258.
 Matthew, W. D. 1899 A, p. 50.
 Roger, O. 1896 A, p. 215.
 Scott and Osborn 1890 A, p. 479, pl. vii, figs. 9-16.
 Trouessart, E. L. 1898 A, p. 840.
 Wortman, J. L. 1898 A, p. 103. (*Parameryx*.)
 Zittel, K. A. 1893 B, p. 361.
 Eocene (Uinta); Wyoming.

PARAMERYX Marsh.

Type *P. laevis* Marsh.

Marsh, O. C. 1894 L, p. 269.
 Cope, E. D. 1894 E, p. 869. (Syn. of *Leptotragulus*.)
 Marsh, O. C. 1877 E, p. 364. (Insufficient definition; no species.)
 Scott, W. B. 1890 A, p. 488.
 1898 C, pp. 74, 77.
 1899 A, p. 47. (Syn.? of *Leptotragulus*.)
 Scott and Osborn 1887 A, p. 259.
 Wilckens, M. 1885 C, p. 418.
 Wortmann, J. L. 1898 A, p. 103.

Cope, E. D. 1894 E, p. 869.
 Matthew, W. D. 1899 A, p. 50.
 Roger, O. 1896 A, p. 215. (*Leptotragulus*.)
 Trouessart, E. L. 1898 A, p. 840. (*Leptotragulus*.)
 Eocene (Uinta); Wyoming.

Parameryx laevis Marsh.**Parameryx sulcatus** Marsh.

Marsh, O. C. 1894 L, p. 269, figs. 20, 21.

Marsh, O. C. 1894 L, p. 269.
 Matthew, W. D. 1899 A, p. 50.
 Roger, O. 1896 A, p. 215. (*Leptotragulus*.)
 Trouessart, E. L. 1898 A, p. 840. (*Leptotragulus*.)
 Eocene (Uinta); Wyoming.

ITHYGRAMMODON Osb., Scott, and Speir.

Type *I. cameloides* Osb., Scott, and Speir.

Osborn, Scott, and Speir 1878 A, p. 56.
 Cope, E. D. 1886 C, p. 613.
 1887 B, p. 391.
 Scott, W. B. 1891 A, p. 9.
 Zittel, K. A. 1893 B, p. 361.

Cope, E. D. 1886 C, p. 613.
 1887 B, p. 391.
 Matthew, W. D. 1899 A, p. 47.
 Roger, O. 1896 A, p. 215.
 Trouessart, E. L. 1898 A, p. 840.
 Eocene (Bridger); Wyoming.

Ithygrammodon cameloides Osb., Scott, and Speir.

Osborn, Scott, and Speir 1878 A, p. 57, pl. x, figs. 1-4.

HYPERTRAGULUS Cope.

Type *H. calcaratus* Cope.

Cope, E. D. 1873 R, p. 419.
 1874 B, p. 502.
 1874 E.
 1874 P, p. 26.
 1894 H, p. 24.
 1885 B, p. 485.
 1887 B, p. 389.
 1889 G, p. 120.
 Flower and Lydekker 1891 A, p. 307.
 Nicholson and Lydekker 1889 A, p. 1334.
 Rüttimeyer, L. 1883 A, p. 99.
 Schlosser, M. 1886 B, p. 75.
 Scott, W. B. 1891 D, p. 90.
 1895 A.
 1899 A, pp. 17-112.
 Zittel, K. A. 1893 B, p. 389.

Hypertragulus calcaratus Cope.

Cope, E. D. 1873 T, p. 7. (*Leptauchenia*.)
 1873 R, p. 419. (*H. calcaratus*, *H. tricornatus*.)
 1873 CC, p. 14. (*Leptauchenia*.)
 1874 B, p. 502 (*H. calcaratus*); p. 503 (*H. tricornatus*.)
 1874 P, p. 26 (*H. calcaratus*); p. 27 (*H. tricornatus*.)
 1879 B, p. 66.
 1879 D, p. 63. (In part.)
 1884 H, p. 24. (In part.)
 1885 B, p. 485. (In part.)
 Matthew, W. D. 1899 A, p. 61. (*H. calcaratus*, *H. tricornatus*.)

- Roger, O. 1896 A, p. 226. (H. calc., H. tricoatus.)
 Scott, W. B. 1893 B, p. 659.
 1895 C, p. 167.
 1899 A, p. 17. (In part.)
 Trouessart, E. L. 1898 A, p. 863. (H. calc., H. tricoatus.)
 Oligocene (White River); Colorado, South Dakota, Montana, Canada: (Deep River beds?) Montana?

***Hypertragulus hesperius* sp. nov.**

- Cope, E. D. 1879 B, p. 66. (H. calcaratus and *Leptomeryx evansi*, John Day specimens.)
 1879 D, p. 63. (H. calcaratus, in part.)
 1884 H, p. 24. (H. calcaratus, in part.)
 1885 B, p. 485. (H. calcaratus, in part.)
 1889 G, p. 122, pl. vi. (H. calcaratus.)

- Leidy, J. 1873 B, pp. 216, 317. (*Leptomeryx evansi*, John Day specimens.)
 Scott, W. B. 1893 B, p. 659. (H. calcaratus.)
 1895 C, p. 167. (H. calcaratus.)
 1899 A, p. 17, in part; pl. i, figs. 3, 4. (H. calcaratus.)
 Miocene (John Day); Oregon: (Deep River?); Montana?

***Hypertragulus transversus* Cope.**

- Cope, E. D. 1889 I, p. 154.
 1891 A, p. 22, pl. xiv, fig. 4.
 Matthew, W. D. 1899 A, p. 61.
 Roger, O. 1896 A, p. 226.
 Trouessart, E. L. 1898 A, p. 864.
 Oligocene (White River); Canada.

POEBROTHERIINÆ.

Unless otherwise indicated, the following writers regard this group as a family, the Poebrotheriidae.

- Cope, E. D. 1874 I, p. 26.
 1874 B, p. 464.
 1884 M, p. 503.
 1886 C, p. 613.
 1887 B, pp. 379, 390.

- Cope, E. D. 1888 X, p. 1080.
 1889 G, p. 119.
 Lydekker, R. 1885 C, p. 149.
 Nicholson and Lydekker 1889 A, p. 1334.
 Roger, O. 1896 A, p. 216. (Poebrotheriinae.)
 Trouessart, E. L. 1898 A, p. 840. (Poebrotheriinae.)
 Zittel, K. A. 1893 B, p. 361. (Poebrotheriinae.)

PROTYLOPUS Wort. Type *P. petersoni* Wort.

- Wortman, J. L. 1898 A, pp. 104, 136.
 Scott, W. B. 1899 A, pp. 22-113.

***Protylopus petersoni* Wort.**

- Wortman, J. L. 1898 A, p. 104, figs. 3-6.

- Matthew, W. D. 1899 A, p. 50.
 Scott, W. B. 1899 A, p. 22, pl. ii, figs. 5-9.
 Trouessart, E. L. 1899 A, p. 1349.
 Eocene (Uinta); Utah.

POEBROTHERIUM Leidy. Type *P. wilsoni* Leidy.

- Leidy, J. 1847 B, p. 322.
 Baur, G. 1885 H, p. 196.
 Branco, W. 1897 A, p. 24.
 Bruce, A. T. 1883 A, p. 39.
 Cope, E. D. 1874 B, p. 498.
 1874 E.
 1874 P, p. 26.
 1875 Q, p. 262.
 1876 G, p. 146.
 1884 H, pp. 25, 26.
 1885 B, pp. 482, 486.
 1886 C, p. 618.
 1887 B, p. 390.
 Flower and Lydekker 1891 A, p. 304.
 Leidy, J. 1848 A.
 1852 J, p. 571. (Poebrotherium.)
 1852 L, p. 64. (Poeluoetherium, misprint.)
 1854 A, p. 113.
 1869 A, p. 141.
 1871 C, p. 350.
 Lydekker, R. 1885 C, p. 149.
 Marsh, O. C. 1877 E.
 Nicholson and Lydekker 1889 A, p. 1334.
 Schlosser, M. 1886 B, p. 48.
 Scott, W. B. 1890 A, p. 483.

- Scott, W. B. 1891 A.
 1891 D, p. 90.
 1892 A, p. 435.
 1895 C, p. 179.
 1898 C, p. 74. (Parameryx.)
 1899 A, p. 23 et seq.
 Steinmann and Döderlein 1898 A, p. 800.
 Trouessart, E. L. 1898 A, p. 840.
 Wilckens, M. 1885 C, p. 419.
 Woodward, A. S. 1898 B, p. 358.
 Wortman, J. L. 1893 A.
 1898 A, pp. 110, 136.
 Zittel, K. A. 1893 B, p. 362.

***Poebrotherium eximium* sp. nov.**

- Wortman, J. L. 1898 A, p. 111, fig. 7. (*P. wilsoni*, not of Leidy.)
 Oligocene (White River); South Dakota.

***Poebrotherium labiatum* Cope.**

- Cope, E. D. 1881 I, p. 271, fig. 4.
 1881 J, p. 544, fig. 4.
 1886 C, p. 618, fig. 7.
 1887 S, p. 271, fig. 4.
 Matthew, W. D. 1899 A, p. 60.

¹Trouessart refers to Bull. U.S. Geog. and Geol. Survey, vol. I, p. 26, as the place of original description of this species; but it is not mentioned there. Cope's reference to "Hayden iv, pl. exv," is to an unpublished work.

- Roger, O. 1896 A, p. 216.
 Scott, W. B. 1891 A, pl. i, fig. 7; pl. ii, figs. 11-39; pl. iii, figs. 40-42, 48-51.
 Trouessart, E. L. 1898 A, p. 840.
 Wortman, J. L. 1898 A, p. 113, pl. xi, figs. C, D.
 Zittel, K. A. 1893 B, pp. 359, 362, fig. 292.

Oligocene (White River); Colorado, South Dakota.

Poebrotherium wilsoni Leidy.

- Leidy, J. 1847 B, p. 322.
 Cope, E. D. 1874 B, p. 500.
 1874 P, p. 24.
 1886 C, p. 618, figs. 3, 9.
 1889 G, 114, fig. 12. (P. wilsoni.)
 Hayden, F. V. 1858 B, p. 157.
 King, C. 1878 A, p. 411.
 Leidy, J. 1848 A.
 1852 J, p. 571. (Pæbrotherium.)

PROTOMERYX Leidy.

- Leidy, J. 1856 J, p. 163.
 Cope, E. D. 1886 C, p. 618 (Gomphotherium, type *G. sternbergii*; preoccupied by Gomphotherium Burmeister).
 Leidy, J. 1869 A, p. 160.
 1871 C, p. 350.
 Nicholson and Lydekker 1889 A, p. 1334. (Gomphotherium.)
 Scott, W. B. 1891 A. (Protomeryx, Gomphotherium.)
 1899 A, pp. 17, 46, 113. (Gomphotherium.)
 Wilckens, M. 1885 C, p. 421.
 Wortman, J. L. 1898 A, pp. 114, 137. (Gomphotherium.)
 Zittel, K. A. 1893 B, p. 362. (Gomphotherium.)
 In case future discoveries shall prove that Cope's *Gomphotherium sternbergii* is generically different from Leidy's *Protomeryx halli* a new generic name must replace *Gomphotherium*.

Protomeryx cameloides (Wort.)

- Wortman, J. L. 1898 A, p. 115, pl. xi, fig. F; text figs. 15-19. (Gomphotherium.)
 Douglass, E. 1900 A, p. 14. (Gomphotherium.)
 Matthew, W. D. 1899 A, p. 64.
 Trouessart, E. L. 1899 A, p. 1349. (Gomphotherium.)
 Miocene (John Day); Oregon.

Protomeryx halli Leidy.

- Leidy, J. 1856 J, p. 163.

- Leidy, J. 1852 L, p. 64. (Pæluotherium, misprint.)
 1854 A, p. 19, pl. i, figs. 1-4.
 1854 E, p. 157.
 1869 A, pp. 141, 381, pl. xiii, figs. 5-7. (Pæbrotherium.)
 1871 C, p. 350.
 Matthew, W. D. 1899 A, p. 61.
 Roger, O. 1896 A, p. 216.
 Scott, W. B. 1890 A, p. 483.
 1891 A, pl. i, figs. 1-3, 8, 9; pl. ii, fig. 1: pl. iii, figs. 44-47.
 Trouessart, E. L. 1898 A, p. 840.
 Wilckens, M. 1885 C, p. 419.
 Wortman, J. L. 1898 A, p. 111, figs. 8-10; pl. xi, fig. B.
 Zittel, K. A. 1893 B, p. 362, fig. 294.
 Oligocene (White River); South Dakota, Nebraska.

Type *P. halli* Leidy.

- Cope, E. D. 1874 P, p. 23. (Pæbrotherium.)
 Hayden, F. V. 1858 B, p. 157.
 King, C. 1878 A, p. 411.
 Leidy, J. 1869 A, pp. 160, 382, pl. xv, figs. 8, 9.
 1871 C, p. 351.
 Matthew, W. D. 1899 A, p. 61.
 Roger, O. 1896 A, p. 216.
 Trouessart, E. L. 1898 A, p. 841.
 Oligocene (White River); South Dakota, Colorado.

Protomeryx serus (Douglass).

- Douglass, E. 1900, p. 12, pl. i, fig. 1. (Gomphotherium.)
 Miocene: Montana.

Protomeryx sternbergii (Cope.)

- Cope, E. D. 1879 B, p. 59. (Pæbrotherium.)
 1884 H, p. 25. (Pæbrotherium.)
 1885 B, p. 486. (Pæbrotherium.)
 1886 C, p. 618, fig. 10. (Gomphotherium.)
 Matthew, W. D. 1899 A, p. 64. (Protomeryx.)
 Roger, O. 1896 A, p. 216. (Gomphotherium.)
 Trouessart, E. L. 1898 A, p. 840. (Gomphotherium.)
 Wortman, J. L. 1898 A, p. 115, pl. xi, fig. E, text figs. 11-14.
 Zittel, K. A. 1893 B, p. 362, fig. 295. (Gomphotherium.)
 Miocene (John Day); Oregon.

MIOLABINÆ nom. nov.

- Cope, E. D. 1884 G, p. 16. (Protolabidæ.)
 1886 C, p. 613. (Protolabidæ.)
 1887 B, pp. 379, 391. (Protolabidæ.)
 1888 X, p. 1080. (Protolabidæ.)

- Roger, O. 1896 A, p. 217. (Protolabinae.)
 Trouessart, E. L. 1898 A, p. 841. (Protolabinae.)
 Zittel, K. A. 1893 B, p. 363. (Protolabinae.)

MIOLABIS Hay. Type *Protolabis transmontanus* Cope.

- Hay, O. P. in Matthew, W. D. 1899 A, pp. 24, 74.
 1899 A, p. 593.
 Matthew, W. D. 1899 A, pp. 24, 74.
 Wortman, J. L. 1898 A, p. 120. (Protolabis.)

Miolabis transmontanus (Cope).

- Cope, E. D. 1879 B, p. 67. (Protolabis.)
 1879 N, p. 131. (Protolabis.)
 1886 B, p. 359. (Protolabis.)

- Cope, E. D. 1886 C, p. 620, fig. 11. (Protolabis.)
 1886 H. (Protolabis.)
 1887 S, p. 223, fig. 13. (Protolabis.)
 Hay, O. P. 1899 A, p. 593.
 Matthew, W. D. 1899 A, p. 74.

- Roger, O. 1896 A, p. 216. (Protolabis.)
 Trouessart, E. L. 1898 A, p. 841. (Protolabis.)
 Wortman, J. L. 1898 A, p. 122. (Protolabis.)
 Zittel, K. A. 1893 B, p. 363, fig. 296. (Protolabis.)
 Miocene (Loup Fork); Oregon.

PROCAMELUS Leidy. Type *P. occidentalis* Leidy.

- Leidy, J. 1858 E, p. 23.
 Baur, G. 1885 L.
 Branco, W. 1897 A, p. 21.
 Cope, E. D. 1873 R, p. 420.
 1874 P, p. 20.
 1875 F, p. 75.
 1875 Q, p. 262.
 1876 G, p. 144. (Procamelus; Protolabis, type
P. heterodontus.)
 1877 K, p. 325. (Procamelus, Protolabis.)
 1884 G, p. 16.
 1886 C, p. 612 (Procamelus); p. 613 (Protola-
 bis).
 1887 B, p. 391 (Protolabis); p. 393 (Procame-
 lus).
 1889 C.
 1893 A, p. 36.
 Gaudry, A. 1878 B, p. 123.
 Leidy, J. 1859 A, p. 147 (Procamelus); p. 158
 (Homocamelus, type *H. caninus*).
 1871 C, p. 350. (Homocamelus.)
 1873 A, p. 312. (Protocamelus.)
 1873 B, p. 258 (Procamelus, or Protocame-
 lus).
 1873 C, p. 15. (Protocamelus.)
 Marsh, O. C. 1877 E.
 Nicholson and Lydekker 1889 A, p. 1334. (Pro-
 camelus, Protolabis.)
 Osborn, Scott, and Spier 1878 A, pl. x, fig. 6. (Pro-
 tolabis.)
 Schlosser, M. 1886 B, p. 48 (Procamelus, Protola-
 bis); p. 49 (Homocamelus).
 Scott, W. B. 1891 A, p. 49 (Procamelus, Protola-
 bis); p. 50 (Homocamelus).
 1891 D, p. 90. (Procamelus, Protolabis.)
 1892 A, p. 436.
 1896 C, p. 179. (Protolabis.)
 Steinmann and Döderlein 1890 A, p. 800 (Proto-
 lalis); p. 801 (Procamelus).
 Wilckens M. 1885 C, p. 421 (Procamelus); p. 421
 (Homocamelus).
 Woodward, A. S. 1898 B, p. 359.
 Wortman, J. L. 1898 A, pp. 120, 122, 139.
 Zittel, K. A. 1893 B, p. 363. (Protolabis, Procame-
 lus.)

Procamelus altus Marsh.

- Marsh, O. C. 1894 L, p. 274, figs. 33, 34.
 Cope, E. D. 1894 E, p. 869. ("Procamelus.")
 Matthew, W. D. 1899 A, p. 73. (Syn. of *P. robustus*.)
 Roger, O. 1896 A, p. 216.
 Trouessart, E. L. 1898 A, p. 841.
 Miocene; Oregon, Colorado.

Procamelus angustidens Cope.

- Cope, E. D. 1874 P, p. 20.
 1874 B, p. 529.
 1877 K, p. 327.

- Cope, E. D. 1893 A, p. 37.
 Matthew, W. D. 1899 A, p. 74.
 Roger, O. 1896 A, p. 216.
 Scott, W. B. 1891 A, p. 57, pl. 1, fig. 6.
 Trouessart, E. L. 1898 A, p. 842.
 Wortman, J. L. 1898 A, p. 124. (Syn. of *P. occi-
 dentalis*.)
 Miocene (Loup Fork); Colorado, Kansas.

Procamelus fissidens Cope.

- Cope, E. D. 1876 G, p. 145.
 1877 K, p. 327.
 1893 A, p. 37.
 Matthew, W. D. 1899 A, p. 74. (Miolabis?)
 Roger, O. 1896 A, p. 216.
 Trouessart, E. L. 1898 A, p. 841.
 Wilckens, M. 1885 C, p. 423.
 Miocene (Loup Fork); Colorado.

Procamelus gracilis Leidy.

- Leidy, J. 1858 F, p. 89.
 Cope, E. D. 1875 F, p. 70.
 1877 K, p. 328 (*P. gracilis*); p. 329, pl. III,
 fig. 2; pl. Ixxvii; pl. Ixxviii, figs. 1-3; pl.
 Ixxviii, figs. 1-9; pl. Ixxix (*P. occiden-
 talis*, *fide* Cope 1893 A, p. 37.)
 1893 A, p. 37.
 Hayden, F. V. 1858 B, p. 157.
 Leidy, J. 1869 A, pp. 155, 382, pl. xiv, fig. 15.
 1871 C, p. 350.
 1873 A, p. 312. (Protocamelus.)
 1873 C, p. 15. (Protocamelus.)
 Leidy and Lucas 1891 A, p. 54.
 Matthew, W. D. 1899 A, p. 73.
 Trouessart, E. L. 1898 A, p. 841.
 Wilckens, M. 1885 C, p. 422.
 Wortman, J. L. 1898 A, p. 124, fig. 20.
 Miocene (Loup Fork); Nebraska, New Mex-
 ico, Texas.

Procamelus heterodontus Cope.

- Cope, E. D. 1873 R, p. 420.
 1874 B, p. 530.
 1874 P, p. 20.
 1876 G, p. 145. (Protolabis.)
 1877 K, p. 325.
 1879 B, p. 68. (Protolabis.)
 1886 C, p. 620, fig. 11.
 Hay, O. P. 1899 A, p. 593.
 Matthew, W. D. 1899 A, p. 74. (Protolabis.)
 Roger, O. 1896 A, p. 216.
 Trouessart, E. L. 1898 A, p. 841. (Protolabis.)
 Wilckens, M. 1885 C, p. 422.
 Wortman, J. L. 1898 A, pp. 120, 123. (Syn. of *P.
 robustus*.)
 Miocene (Loup Fork); Colorado.

Procamelus lacustris Douglass.

- Douglass, E. 1900 A, p. 18, pl. I, fig. 2.
 Miocene; Montana.

Procamelus leptognathus Cope.

Cope, E. D. 1893 A, p. 37.

Matthew, W. D. 1899 A, p. 73.

Roger, O. 1896 A, p. 216.

Trouessart, E. L. 1898 A, p. 842.

Miocene (Loup Fork); Texas.

Procamelus madisonius Douglass.

Douglass, E. 1900 A, p. 15, pl. II.

Miocene; Montana.

Procamelus major (Leidy).

Leidy, J. 1886 B, p. 11. (Auchenia.)

Cope, E. D. 1892 A.A. (Pliuchaenia.)

Leidy, J. 1887 A. (Auchenia.)

1889 A. (Auchenia.)

1892 A. (Auchenia.)

Leidy and Lucas 1896 A, pp. viii, 53; pl. xv, fig. 9; pl. xvii, figs. 1-16; pl. xviii, figs. 1-4.

Roger, O. 1896 A, p. 219. (Auchenia.)

Trouessart, E. L. 1898 A, p. 845. (Lama.)

Pliocene; Florida.

Procamelus minimus (Leidy).

Leidy, J. 1886 B, p. 11. (Auchenia.)

Cope, E. D. 1892 A.A. (Auchenia.)

Leidy, J. 1889 D, p. 17, pl. III, fig. 5. (Auchenia.)

1892 A. (Auchenia.)

Leidy and Lucas 1896 A, pp. viii, 53, pl. xvi, figs. 1-4.

Roger, O. 1896 A, p. 218. (Auchenia.)

Trouessart, E. L. 1898 A, p. 845. (Lama.)

Pliocene; Florida.

Procamelus minor (Leidy).

Leidy, J. 1886 B, p. 12. (Auchenia.)

Cope, E. D. 1892 A.A. (Pliuchaenia media.)

Leidy, J. 1889 A. (Auchenia.)

1892 A. (Auchenia.)

Leidy and Lucas 1896 A, pp. viii, 53, pl. xv, fig. 10;

pl. xvii, figs. 17, 18; pl. xviii, figs. 5, 6. (P. medius, error for P. minor.)

Roger, O. 1896 A, p. 218. (Auchenia.)

Trouessart, E. L. 1898 A, p. 846. (Lama.)

Pliocene; Florida.

Procamelus montanus (Douglass).

Douglass, E. 1900 A, p. 13, pl. III. (Protolabis.)

Miocene; Montana.

Procamelus occidentalis Leidy.

Leidy, J. 1858 E, p. 23.

Baur, G. 1885 I.

Cope, E. D. 1874 B, p. 531.

1874 P, p. 22.

1875 F, p. 70, pl. II.

1876 G, pp. 144, 146.

1877 K, p. 329, pl. liii, fig. 2; pl. lxxvi; pl.

lxxvii, figs. 1-3; pl. lxxviii, figs. 1-9; pl.

lxxix.

1877 M.

Cope, E. D. 1881 J, p. 547, fig. 9.

1886 C, p. 621, figs. 2, 12, 14.

1887 S, p. 223, fig. 14.

1889 G, p. 114, fig. 10.

1893 A, p. 37.

Hayden, F. V. 1858 B, p. 157.

Leidy, J. 1869 A, pp. 151, 382, pl. ix, fig. 5; pl. xv, figs. 5-7 (P. occidentalis); pp. 158, 382, pl. xiv, figs. 16, 17 (Homocamelus caninus).

1871 C, p. 350. (P. occidentalis, Homocamelus caninus.)

1873 A, p. 312. (Protocamelus.)

1873 B, pp. 258, 317, pl. xx.

1873 C, p. 15. (Protocamelus.)

Matthew, W. D. 1899 A, p. 73.

Osborn, Scott, and Speir 1878 A, pl. x, fig. 5.

Owen, R. 1870 C, p. 74.

Roger, O. 1896 A, p. 216 (P. occidentalis); p. 217 (Homocamelus caninus).

Scott, W. B. 1891 A, pp. 51, 57, pl. I, figs. 4, 5; pl. III, fig. 52.

Trouessart, E. L. 1898 A, p. 841 (P. occidentalis), p. 842 (Homocamelus caninus).

Wilckens, M. 1885 C, p. 422 (P. occidentalis); p. 424 (Homocamelus caninus).

Woodward, A. S. 1898 B, p. 359, fig. 206.

Wortman, J. L. 1898 A, pp. 116, 123, 124, pl. xi, fig. G.

Zittel, K. A. 1893 B, p. 363, fig. 279.

Miocene (Loup Fork); South Dakota, Nebraska, New Mexico, Texas.

Procamelus robustus Leidy.

Leidy, J. 1858 F, p. 89.

Cope, E. D. 1881 C, p. 175. (Protolabis prehensilis.)

1893 A, p. 37.

Hay, O. P. 1899 A, p. 593.

Hayden, F. V. 1858 B, p. 157.

King, C. 1878 A, p. 430.

Leidy, J. 1869 A, pp. 148, 381, pl. xv, figs. 1-4.

1871 C, p. 350.

1873 B, pp. 258, 317.

Matthew, W. D. 1899 A, p. 73.

Roger, O. 1896 A, p. 216. (Protolabis robustus, P. prehensilis.)

Trouessart, E. L. 1898 A, p. 841.

Wilckens, M. 1885 C, p. 423.

Wortman, J. L. 1898 A, pp. 120, 123.

Miocene (Loup Fork); Nebraska, Kansas, Texas, New Mexico.

Procamelus virginianensis Leidy.

Leidy, J. 1873 C, p. 15. (Protocamelus.)

1873 A, p. 311. (Protocamelus.)

1873 B, pp. 259, 317, pl. xxvii, figs. 26-29.

Roger, O. 1896 A, p. 216.

Trouessart, E. L. 1898 A, p. 842.

Wilckens, M. 1885 C, p. 422.

Miocene; Virginia.

¹ This description and the accompanying figures are referred later by Professor Cope to *P. gracilis*. Dr. Wortman (1898 A, p. 124) appears to regard the New Mexican specimens as *P. occidentalis*.

CAMELOPS Leidy. Type *C. kansanus* Leidy.

Leidy, J. 1854 F, p. 172.

Cope, E. D. 1884 G, p. 16. (*Holomeniscus*, type *Auchenia hesternus*.)

1886 C, p. 621. (*Holomeniscus*.)

1887 B, p. 392. (*Holomeniscus*.)

Cragin, F. W. 1892 A, p. 257. (*Holomeniscus*.)

Leidy, J. 1858 E, p. 24. (*Megalomeryx*, type *M. niobrarensis*.)

1871 C, p. 349 (*Camelops*); p. 351 (*Megalomeryx*).

Scott, W. B. 1891 A, p. 52. (*Holomeniscus*.)

1892 A, p. 436. (*Holomeniscus*.)

Steinmann and Döderlein 1890 A, p. 801. (*Holomeniscus*.)

Whitney, J. D. 1879 A, p. 250. (*Megalomeryx*.)

Wilekens, M. 1885 C, p. 425. (*Megalomeryx*.)

Wortman, J. L. 1898 A, p. 128.

Zittel, K. A. 1893 B, p. 364 (*Camelops*); p. 365 (*Holomeniscus*).

Camelops californicus (Leidy).

Leidy, J. 1870 T, p. 126. (*Auchenia*.)

Bowers, S. 1889 A, p. 391. (*Holomeniscus*.)

Cope, E. D. 1884 G, p. 18. (*Auchenia*.)

Cragin, F. W. 1892 A, p. 257. (*Auchenia*.)

Leidy, J. 1871 C, p. 349. (*Auchenia*.)

1873 B, p. 255. (*Auchenia*.)

Roger, O. 1896 A, p. 217. (*Holomeniscus*.)

Trouessart, E. L. 1898 A, p. 843. (Subsp. of *Holomeniscus hesternus*.)

Whitney, J. D. 1879 A, p. 248. (*Auchenia*.)

Wilekens, M. 1885 C, p. 431. (*Auchenia*.)

Zittel, K. A. 1893 B, p. 365. (*Holomeniscus*.)

Pleistocene; California.

Camelops hesternus (Leidy).

Leidy, J. 1873 F. (*Auchenia*.)

Cope, E. D. 1884 G, p. 17. (*Holomeniscus*.)

1889 F. (*Holomeniscus*.)

1889 S, pp. 978, 980. (*Holomeniscus*.)

1892 E, p. 251. (*Holomeniscus*.)

Cragin, F. W. 1892 A, p. 257. (*Auchenia*.)

Dana, J. D. 1879 A, p. 233. (*Auchenia*.)

Leidy, J. 1873 B, pp. 255, 317, pl. xxxvii, figs. 1-3. (*Auchenia*.)

Roger, O. 1896 A, p. 217. (*Holomeniscus*.)

Trouessart, E. L. 1898 A, p. 843. (*Holomeniscus*.)

Whitney, J. D. 1879 A, p. 250. (*Auchenia*.)

Wilekens, M. 1885 C, p. 431. (*Auchenia*.)

Wortman, J. L. 1898 A, p. 130. (Syn. of *Camelops kansanus*.)

Yates, L. G. 1874 B, p. 18. (*Auchenia*.)

Pleistocene; California, Oregon, Mexico.

From this species the Texan and New Mexican specimens are excluded. Not improbably the species is identical with *C. kansanus*.

Camelops kansanus Leidy.

Leidy, J. 1854 F, p. 172.

Cope, E. D. 1893 A, p. 72 (*Auchenia huerfanensis*); p. 84, pl. xxiii, fig. 4 (*Holomeniscus sulcatus*).

Cragin, F. W. 1892 A, p. 258. (*Auchenia huerfanensis*.)

1896 A, p. 53. (*A. huerfanensis*.)

Hayden, F. V. 1858 B, p. 157. (*Megalomeryx niobrarensis*.)

King, C. 1878 A, p. 430. (*Megalomeryx niobrarensis*.)

Leidy, J. 1856 T, p. 166, pl. xvii, figs. 8-10.

1858 E, p. 21. (*Megalomeryx niobrarensis*.)

1869 A, p. 382 (*C. kansanus*); pp. 161, 382, pl. xiv, figs. 12-14 (*Megalomeryx niobrarensis*).

1871 C, p. 349 (*C. kansanus*); p. 351 (*Megalomeryx niobrarensis*.)

1873 B, p. 260, pl. xxvii, figs. 21, 25 (*Megalomeryx niobrarensis*); p. 317 (*Procamelus? niobrarensis*).

Owen, R. 1870 C, p. 75.

Roger, O. 1896 A, p. 216 (*Procamelus niobrarensis*); p. 217 (*Camelops kansanus*, *Holomeniscus sulcatus*); p. 218 (*Auchenia huerfanensis*).

Trouessart, E. L. 1898 A, p. 842 (*C. kansanus*); p. 845 (*Lama huerfanensis*).

Wilekens, M. 1885 C, p. 425.

Williston, S. W. 1897 I, p. 303 (*C. kansanus*); p. 304 (*Auchenia huerfanensis*).

1898 I, p. 92. (*Auchenia kansanus*, *A. huerfanensis*.)

Wortman, J. L. 1898 A, p. 130.

Pleistocene; Kansas.

Camelops macrocephalus (Cope).

Cope, E. D. 1893 A, p. 85, pl. xxiii, fig. 5. (*Holomeniscus*.)

Roger, O. 1896 A, p. 217. (*Holomeniscus*.)

Trouessart, E. L. 1898 A, p. 843. (*Holomeniscus*.)

Pliocene (*Equus* beds); Texas.

Camelops vitakerianus (Cope).

Cope, E. D. 1878 H, p. 380. (*Auchenia*.)

1884 G, p. 17. (*Holomeniscus*.)

1889 F. (*Holomeniscus*.)

1889 S, pp. 978, 980. (*Holomeniscus*.)

1893 A, p. 86. (*Holomeniscus*.)

Roger, O. 1896 A, p. 217. (*Holomeniscus*.)

Trouessart, E. L. 1898 A, p. 843. (*Holomeniscus*.)

Wortman, J. L. 1898 A, p. 132.

Pliocene; Oregon.

PLIAUCHENIA Cope. Type *P. humphreysiana* Cope.

Cope, E. D. 1875 P, p. 258.

1875 F, pp. 69, 75.

1875 Q, p. 262.

1876 G.

1877 K, p. 340.

Cope, E. D. 1886 C, p. 612.

1887 B, p. 392.

1893 A, p. 70.

Flower and Lydekker 1891 A, p. 304.

Nicholson and Lydekker 1889 A, p. 1331.

- Schlosser, M. 1886 B, p. 49.
 Scott, W. B. 1891 A, p. 51.
 Wilckens, M. 1885 C, p. 423.
 Wortman, J. L. 1898 A, p. 126.
 Zittel, K. A. 1893 B, p. 364.

Pliauchenia humphreysiana Cope.

- Cope, E. D.* 1875 P, p. 258.
 1875 F, p. 69.
 1877 K, p. 344, pl. lxxvii, fig. 4.
 1886 C, p. 621.
 1892 AA.
Matthew, W. D. 1899 A, p. 74.
Roger, O. 1896 A, p. 217.
Trouessart, E. L. 1898 A, p. 842. (P. humphreysiana.)
Wilckens, M. 1885 C, p. 430.
Wortman, J. L. 1898 A, p. 127. (P. humphreysiana.)
Zittel, K. A. 1893 B, p. 364. (P. humphreysiana.)
 Miocene (Loup Fork); New Mexico, Kansas.

Pliauchenia minima Wort.

- Wortman, J. L.* 1898 A, p. 127.
Matthew, W. D. 1899 A, p. 74.
 Miocene (Loup Fork); Kansas.

Pliauchenia spatula Cope.

- Cope, E. D.* 1893 A, p. 70, pl. xxi, figs. 1, 2.
Matthew, W. D. 1899 A, p. 75.
Roger, O. 1896 A, p. 217.
Trouessart, E. L. 1898 A, p. 842.
Wortman, J. L. 1898 A, p. 127.
 Pliocene (Blanco); Texas.

Pliauchenia vulcanorum Cope.

- Cope, E. D.* 1875 P, p. 259.
 1875 F, p. 70.
 1877 K, p. 345, pl. lxxvii, fig. 5.
 1892 AA.
Matthew, W. D. 1899 A, p. 74.
Roger, O. 1896 A, p. 217.
Trouessart, E. L. 1898 A, p. 842.
Wilckens, M. 1885 C, p. 430.
Wortman, J. L. 1898 A, p. 127.
 Miocene (Loup Fork); New Mexico.
 As Dr. Wortman has pointed out, the generic position of this species is doubtful.

CAMELINÆ.

- Cope, E. D.* 1887 B, pp. 379, 394. (Eschatiidae.)
 1888 X, p. 1080. (Eschatiidae.)
Roger, O. 1896 A, p. 217.

- Trouessart, E. L.* 1898 A, p. 843.
Zittel, K. A. 1893 B, p. 364.

ESCHATIUS Cope. Type *E. conidens* Cope.

- Cope, E. D.* 1884 G, pp. 16, 18.
 1886 C, p. 622.
 1891 L, p. 1118.
Nicholson and Lydekker 1889 A, p. 1335.
Scott, W. B. 1891 A, p. 52.
 1892 A, p. 436.
Steinmann and Döderlein 1890 A, p. 801.
Zittel, K. A. 1893 B, p. 365.

Eschatus conidens Cope.

- Cope, E. D.* 1884 G, p. 19.
 1889 F.
 1889 S, pp. 978, 980.

- Roger, O.* 1896 A, p. 217.
Trouessart, E. L. 1898 A, p. 843.
Wortman, J. L. 1898 A, p. 134.
 Pliocene; Oregon, Mexico.

Eschatus longirostris Cope.

- Cope, E. D.* 1884 G, p. 20.
 1889 F.
 1889 S, pp. 978, 980.
Roger, O. 1896 A, p. 217.
Trouessart, E. L. 1898 A, p. 843.
Wortman, J. L. 1898 A, p. 135.
 Pliocene; Oregon.

CAMELUS Linn. Type *C. dromedarius* Linn.

- Linnaeus, C.* 1758, Syst. Nat., ed. 10, i, p. 65.
Baur, G. 1885 I, p. 196.
Blainville, H. M. D. 1864 A, iv, CC, p. 61, pls. i-v.
Cope, E. D. 1886 C, p. 612.
Flower and Lydekker 1891 A, p. 296.
Lydekker, R. 1885 C, p. 139.
Nicholson and Lydekker 1889 A, p. 1335.
Owen, R. 1866 B, p. 470, figs. 307, 318.
 1868 A, p. 349, fig. 278.
Paulli, S. 1900 A, p. 203.

- Roger, O.* 1896 A, p. 219.
Scott, W. B. 1891 A.
Trouessart, E. L. 1898 A, p. 846.
Woodward, A. S. 1898 B, p. 360.
Zittel, K. A. 1893 B, p. 364.

Camelus americanus Wort.

- Wortman, J. L.* 1898 A, p. 133, fig. 2.
Trouessart, E. L. 1899 A, p. 1349.
 Pleistocene; Nebraska.

TELEOPTERNUS Cope. Type *T. orientalis* Cope.

- Cope, E. D.* 1899 A, p. 263.
 Professor Cope expressed himself as being unable to determine whether this genus was a camelid or a cervid.

Teleopternus orientalis Cope.

- Cope, E. D.* 1899 A, p. 264, pl. xxi, figs. 4, 4a.
 Pleistocene; Pennsylvania.

Superfamily TRAGULOIDEA.

Citations to the literature of this superfamily and of the family Tragulidae are here presented because by some authors the Leptomerycinae, here placed in the Cameloidae, have been assigned to the Tragulidae and may yet be retained there. Unless otherwise indicated, the following authors use the name Tragulina in referring to this group.

Cope, E. D. 1885 B.
Flower, W. H. 1874 A.

Flower, W. H. 1885 A.
Flower and Lydekker 1891 A, p. 305.
Gill, T. 1872 B, pp. 9, 73, 80. (Traguloidea.)
Osborn and Wortman 1892 B, p. 370.
Rütimeyer, L. 1867 B.
1877 A, p. 21.
1878 A, p. 21.
1883 A, p. 15.
1884 A, p. 403.
Scott, W. B. 1892 A, p. 436.

TRAGULIDÆ.

Boas, J. E. V. 1890 A.
Branco W. 1897 A, p. 25.
Cope, E. D. 1884 H, p. 27.
1887 B, pp. 379, 388.
1888 X, p. 1081.
1889 G, p. 120.
Edwards, A. M. 1864 A.
Flower, W. H. 1873 A.
Flower and Lydekker 1889 A, p. 305.
Gill, T. 1872 B, pp. 9, 73, 80.
Gray, J. E. 1869 C.
Huxley, T. H. 1870 A, p. 439.
1872 A, p. 326.

Kowalevsky, W. 1873 A, p. 186.
Lydekker, R. 1885 C, p. 150.
1896 B, p. 164.
Nicholson and Lydekker 1889 A, p. 1333.
Osborn and Wortman 1892 B, p. 370.
Roger, O. 1896 A, p. 224.
Schlosser, M. 1886 A, p. 251.
1886 B, p. 72.
Scott, W. B. 1890 B, p. 388.
Steinmann and Döderlein 1890 A, p. 802.
Trouessart, E. L. 1898 A, p. 857.
Woodward, A. S. 1898 B, p. 360.
Zittel, K. A. 1893 B, p. 381.

Superfamily BOÖIDEA.

Boas, J. E. V. 1890 A. (Ruminantia.)
Brandt, E. 1888 A. (Ruminantia.)
Cope, E. D. 1884 H, p. 27. (Selenodonta.)
1884 DD. (Selenodonta.)
1885 B, p. 483. (Selenodonta.)
1887 B, p. 304 (Pecora); p. 378 (Selenodonta.)
1896 B, p. 130. (Boöidea.)
Cuvier, G. 1834 A, vi. (Ruminantia.)
Flower, W. H. 1873 A. (Ruminantia.)
1874 A. (Pecora.)
1883 D, p. 430. (Pecora.)
1885 A. (Pecora.)
Flower and Lydekker 1891 A, p. 307. (Pecora.)
Gaudry, A. 1878 B, p. 77. ("Les Ruminants.")
Gill, T. 1872 B, pp. 9, 76.
Grüber, W. 1859 A. (Ruminantia.)
Huxley, T. H. 1872 A, p. 322. (Ruminantia.)
Kowalevsky, W. 1873 A, p. 171. (Selenodonta.)
1874 A. (Ruminantia.)
Lydekker, R. 1883 A. (Ruminantia.)

Marsh, O. C. 1877 E. (Selenodonta.)
Mayo, F. 1888 A. (Ruminantia.)
Metam, A. E. 1895 A. (Ruminantia.)
Osborn and Wortman 1892 B, p. 370. (Pecora.)
Owen, R. 1815 B, p. 527. (Ruminantia.)
1857 A. (Ruminantia.)
Parker, W. K. 1885 A, p. 201.
Roger, O. 1889 A. (Ruminantia.)
Rütimeyer, L. 1862 A, p. 608. (Ruminantia.)
1865 A.
1867 B.
1868 A.
1884 A, p. 425. (Selenodonta.)
Schlosser, M. 1889 A.
Schmidt, O. 1886 A, p. 150 (Ruminantia); p. 173 (Cavicornia).
Scott, W. B. 1899 A, p. 118. (Pecora.)
Steinmann and Döderlein 1890 A, p. 797.
Turner, H. N. 1848 A.
Zittel, K. A. 1893 B, p. 413. (Cavicornia.)

CERVIDÆ.

Ameghino, F. 1889 A, p. 599.
Baird, S. F. 1857 A, p. 629.
Baur, G. 1884 F, p. 599.
Branco, W. 1897 A, p. 25. (Cervicornia.)
Brandt, E. 1888 A.
Brooke, V. 1878 A, p. 883.
Cope, E. D. 1887 B, pp. 379, 394, 398.
1888 X, p. 1081.
1889 G, p. 124.
Cope and Wortman 1884 A, p. 22.
Coues, E. 1878 B.
Cuvier, G. 1834 A, vi, p. 43, plates.
Flower, W. H. 1873 A.

Flower, W. H. 1874 A.
1883 D, p. 431.
1885 A.
Flower and Lydekker 1891 A, p. 31.
Gill, T. 1872 B, pp. 9, 73.
Leidy, J. 1871 C, p. 351.
Leuthardt, F. 1891 A, p. 126.
Lydekker, R. 1885 C, p. 73.
Lydekker, R. 1896 B, p. 164.
1898 A.
Marsh, O. C. 1877 E.
Nicholson and Lydekker 1889 A, p. 1336.
Nitsche, H. 1899 A.

Owen, R. 1866 B.
 Pohllg, H. 1892 A.
 Roger, O. 1887 A.
 Rüttimeyer, L. 1887 B. (Cervicornia.)
 1877 A.
 1878 A, p. 25.
 1881 A.
 1882 A.

Rüttimeyer, L. 1883 A, p. 20.
 Schmidt, O. 1886 A, p. 158.
 Steinmann and Döderlein 1890 A, p. 804.
 Trouessart, E. L. 1898 A, p. 864.
 Weyhe, —. 1875 A, p. 118.
 Woodward, A. S. 1898 B, p. 363.
 Zittel, K. A. 1893 B, p. 390. (Cervicornia.)

CERVULINÆ.

Brooke, V. 1874 A.
 Cope, E. D. 1887 B, pp. 394, 395. (Cosorycinae,
 Cosorycidae.)
 Flower, W. H. 1874 A.
 Roger, O. 1896 A, p. 227.
 Rüttimeyer, L. 1881 A, p. 23.

Rüttimeyer, L. 1882 A, p. 16. (Cervulina.)
 1884 A, p. 445.
 Steinmann and Döderlein 1890 A, p. 806.
 Trouessart, E. L. 1898 A, p. 865.
 Zittel, K. A. 1893 B. 395.

PALÆOMERYX Meyer. Types *P. bojani* and *P. kaupii*.

Meyer, H. 1834 A, p. 92.
 Blainville, H. M. D. 1864 A, iv, BB, p. 135.
 Depéret, C. 1887 A, p. 210.
 Douglass, E. 1900 A, p. 20.
 Flower and Lydekker, 1891 A, p. 330.
 Hofmann, A., 1888, Jahrb. k. k. geol. Reichsanst.,
 xxxviii, p. 551.
 Lydekker, R., 1883, Mem. Geol. Surv. India, ii, pp.
 173, 174. (Propalæomeryx.)
 Nicholson and Lydekker 1889 A, p. 1338.
 Picotet, F. J. 1853 A, p. 350.
 Rüttimeyer, L. 1883 A, p. 79.

Schlosser, M. 1886 C, p. 294.
 Steinmann and Döderlein 1890 A, p. 805.
 Trouessart, E. L. 1898 A, p. 867.
 Zittel, K. A. 1893 B, p. 397.

Palæomeryx americanus Douglass.

Douglass, E. 1900 A, p. 20, pl. iv, figs. 2, 3.
 Miocene (Loup Fork); Montana.

Palæomeryx madisonius Douglass.

Douglass, E. 1900 A, p. 23.
 Miocene (Loup Fork); Montana.

BLASTOMERYX Cope. Type *Merycodus gemmifer* Cope.

Cope, E. D. 1877 K, p. 350.
 1875 F, p. 68. (Dicrocerus, not of Lartet.)
 1875 O, p. 257. (Dicrocerus.)
 1878 C, p. 222.
 1884 H, p. 27.
 1885 B, p. 488.
 1887 B, p. 396.
 1889 C, p. 206.
 1889 G, p. 125.

Nicholson and Lydekker 1889 A, p. 1342.

Scott, W. B. 1891 D, p. 90.

1895 C, p. 167.

Scott and Osborn 1890 B, p. 76, figs. 7-9.

Zittel, K. A. 1893 B, p. 399.

Blastomeryx antilopinus Scott.

Scott, W. B. 1893 B, p. 662.
 Matthew, W. D. 1899 A, p. 74.
 Roger, O. 1896 A, p. 230.
 Scott, W. B. 1895 C, p. 168, pl. vi, figs. 48-51.
 Trouessart, E. L. 1898 A, p. 870.

Miocene (Loup Fork); Montana.

Blastomeryx borealis Cope.

Cope, E. D. 1878 C, p. 222.

1878 H, p. 382.

1878 L, p. 58.

1884 DD, p. 1035.

1886 B, p. 359.

Cope, E. D. 1886 H.

1889 G, p. 123, figs. 16, 19.

Matthew, W. D. 1899 A, p. 74.

Roger, O. 1896 A, p. 230.

Scott, W. B. 1891 D, p. 91.

1893 B, p. 659.

1895 C, p. 168.

Trouessart, E. L. 1898 A, p. 870.

Miocene (Loup Fork); Montana, Oregon.

Blastomeryx gemmifer Cope.

Cope, E. D. 1874 B, p. 531. (Merycodus.)

1874 P, p. 22. (Merycodus.)

1875 F, p. 68. (Dicrocerus.)

1875 O, p. 257. (Dicrocerus.)

1877 K, pp. 350, 360, pl. lxxxii, fig. 13.

[Dicrocerus (Blastomeryx).]

1884 DD, p. 1035. (Cosoryx.)

1885 B, p. 488.

1893 A, p. 39.

Matthew, W. D. 1899 A, p. 74.

Roger, O. 1896 A, p. 230.

Scott and Osborn 1890 B, p. 76.

Trouessart, E. L. 1898 A, p. 870.

Wilckens, M. 1885 C, p. 425. (Cosoryx.)

Zittel, K. A. 1893 B, p. 399, fig. 330.

Miocene (Loup Fork); Colorado, Texas?, New
 Mexico, Nebraska.

MERYCODUS Leidy. Type *M. necatus* Leidy.

Leidy, J. 1854 C, p. 90.

Cope, E. D. 1875 F, p. 69. (*Dicrocerus*, not of *Lartet.*)

1875 O. (*Dicrocerus.*)

1877 K, p. 346. (*Dicrocerus.*)

1879 A, p. 46. (*Procervulus*, *Merycodus*, and *Cosoryx*, "nomina nuda.")

1880 B, p. 46. (Syn. of *Procervulus* Gaudry.)

1884 H, p. 27. (*Cosoryx.*)

1884 Z, p. 718. (*Cosoryx.*)

1884 DD. (*Cosoryx.*)

1885 B, p. 488. (*Cosoryx.*)

1887 B, p. 396. (*Cosoryx.*)

1889 C. (*Cosoryx.*)

1889 G, p. 125. (*Cosoryx.*)

Hay, O. P. 1899 A, p. 594.

Hensel, R. 1859 A. (*Dicrocerus* *Lartet*, not of *Cope.*)

Leidy, J. 1858 E, p. 23. (*Merycodus.*)

1869 A, pp. 162, 382 (*Merycodus*; pp. 173, 383 (*Cosoryx*, type *C. furcatus*).

1871 C, p. 350 (*Merycodus*; p. 351 (*Cosoryx*).

1873 B, p. 318. (*Merycodus.*)

Marsh, O. C. 1877 E. (*Cosoryx.*)

Nicholson and Lydekker 1889 A, p. 1345. (*Cosoryx.*)

Rütimeyer, L. 1878 A, p. 90. (*Cosoryx.*)

Trouessart, E. L. 1898 A, p. 870. (*Cosoryx.*)

Wilckens, M. 1885 C, p. 425.

Zittel, K. A. 1893 B, p. 399. (*Cosoryx.*)

***Merycodus agilis* (Douglass).**

Douglass, E. 1900 A, p. 23, pl. iv, fig. 1. (*Cosoryx.*)
Miocene; Montana.

***Merycodus furcatus* (Leidy).**

Leidy, J. 1869 A, pp. 173, 383, pl. xxviii, fig. 8. (*Cosoryx.*)

Cope, E. D. 1874 I, p. 148. (*Cosoryx.*)

1875 O, p. 257. (*Dicrocerus.*)

1877 K, p. 350, pls. lxxx, lxxxi, fig. 1; pl. lxxxii, fig. 1. (*Dicrocerus.*)

1880 E, p. 141. (*Procervulus.*)

1881 J, p. 547, fig. 10. (*Cosoryx.*)

1887 S, p. 271, fig. 5.

1889 C. (*Cosoryx.*)

1889 G, p. 114, fig. 11. (*Cosoryx.*)

Dawkins, W. B. 1870 A, p. 232. (*Cosoryx.*)

King, C. 1878 A, p. 430. (*Cosoryx.*)

Leidy, J. 1871 C, p. 352. (*Cosoryx.*)

Matthew, W. D. 1899 A, p. 74. (*Cosoryx.*)

Roger, O. 1896 A, p. 230. (*Cosoryx.*)

Scott and Osborn 1890 B, p. 82, pl. i. (*Cosoryx.*)

Trouessart, E. L. 1898 A, p. 870. (*Cosoryx.*)

Zittel, K. A. 1893 B, p. 399, fig. 331. (*Cosoryx.*)

Miocene (Loup Fork); Nebraska, New Mexico.

***Merycodus necatus* Leidy.**

Leidy, J. 1854 C, p. 90. (*Merycodus.*)

Cope, E. D. 1875 F, p. 69. (*Dicrocerus.*)

1875 O, p. 257. (*Dicrocerus.*)

1877 K, pp. 350, 353, pl. lxxxii, figs. 2-6; pl. lxxxii, figs. 2, 3. (*Dicrocerus.*)

1880 E, p. 141. (*Procervulus.*)

1889 G, p. 128, fig. 18. (*Cosoryx.*)

Hayden, F. V. 1858 B, p. 157. (*M. necatus*, *Cervus warreni*.)

King, C. 1878 A, p. 430. (*Cervus warreni*, *M. necatus.*)

Leidy, J. 1854 E, p. 157.

1858 E, p. 23. (*M. necatus*, *Cervus warreni*.)

1869 A, pp. 162, 382, pl. xiv, figs. 9, 10 (*M. necatus*); pp. 172, 379, pl. xxvii, fig. 12 (*Cervus warreni*).

1871 C, p. 350 (*M. necatus*); p. 351 (*Cervus warreni*).

1873 B, p. 318.

Matthew, W. D. 1899 A, p. 74. (*Cosoryx.*)

Roger, O. 1896 A, p. 230.

Trouessart, E. L. 1898 A, p. 870.

Wilckens, M. 1885 C, p. 425.

Pliocene; South Dakota, Wyoming Nebraska, New Mexico.

***Merycodus ramosus* (Cope).**

Cope, E. D. 1874 I, p. 148, in part. (*Cosoryx.*)

1874 O, p. 16. (*Cosoryx.*)

1875 F, p. 69. (*Dicrocerus.*)

1875 O, p. 257. (*Dicrocerus.*)

1877 K, pp. 350, 356. (Syn., in part, of *Dicrocerus furcatus*.)

1880 E, p. 141. (*Procervulus.*)

1889 C, p. 205. (*Cosoryx.*)

1889 G, p. 128, fig. 18. (*Cosoryx.*)

Matthew, W. D. 1899 A, p. 74. (Syn. of *Cosoryx furcatus*.)

Trouessart, E. L. 1898 A, p. 870. (Syn. of *Cosoryx furcatus*.)

Pliocene; New Mexico.

***Merycodus tehuanus* (Cope).**

Cope, E. D. 1877 K, pp. 350, 359, pl. lxxxii, figs. 10-12. (*Dicrocerus.*)

Matthew, W. D. 1899 A, p. 74. (*Cosoryx.*)

Roger, O. 1896 A, p. 230. (*Cosoryx.*)

Trouessart, E. L. 1898 A, p. 870. (Syn. of *Cosoryx trilateralis*.)

Pliocene; New Mexico.

A doubtful species.

***Merycodus teres* (Cope).**

Cope, E. D. 1874 I, p. 148. (*Cosoryx.*)

1874 O, p. 16. (*Cosoryx.*)

1875 F, p. 69. (*Dicrocerus.*)

1875 O, p. 257. (*Dicrocerus.*)

1877 K, pp. 347, 356, pl. lxxxii, fig. 7; pl. lxxxii, fig. 6. (*Dicrocerus.*)

Matthew, W. D. 1899 A, p. 74. (*Cosoryx.*)

Roger, O. 1896 A, p. 230. (*Cosoryx.*)

Scott and Osborn 1890 B, p. 83. (*Cosoryx.*)

Trouessart, E. L. 1898 A, p. 870. (*Cosoryx.*)

Miocene (Loup Fork); New Mexico.

***Merycodus trilateralis* (Cope).**

Cope, E. D. 1877 K, p. 357, pl. lxxxii, fig. 8; pl. lxxxii, figs. 7-9. (*Dicrocerus.*)

Matthew, W. D. 1899 A, p. 74. (*Cosoryx.*)

Roger, O. 1896 A, p. 230. (*Cosoryx.*)

Scott and Osborn 1890 B, p. 83. (*Cosoryx.*)

Trouessart, E. L. 1898 A, p. 870. (*Cosoryx.*)

Miocene (Loup Fork); New Mexico.

CERVINÆ.

- Baird, S. F. 1857 A, p. 630.
 Flower and Lydekker 1891 A, p. 316.
 Gill, T. 1872 B, p. 9.
 Lydekker, R. 1898 A, p. 32.
 Nicholson and Lydekker 1889 A, p. 1342.
 Roger, O. 1887 A. (Cervina.)

- Roger, O. 1896 A, p. 230.
 Rüttimeyer, L. 1882 A, p. 22. (Cervina.)
 1883 A, p. 20. (Cervina.)
 1884 A, p. 408. (Cervina.)
 Steinmann and Döderlein 1890 A, p. 806.
 Zittel, K. A. 1893 B, p. 400.

DAMA Zimm. Type *D. virginiana* Zimm.

- Zimmermann, E., 1777, Zool. Geog., p. 532.
 Baird, S. F. 1857 A, p. 637. (Cervus, in part.)
 Cope, E. D. 1887 B, p. 398. (Cariacus.)
 1889 G, p. 132. (Cariacus.)
 Flower and Lydekker 1891 A, p. 329. (Cariacus.)
 Gray, J. E. 1850. (Cariacus.)
 Hensel, R. 1859 A, p. 257. (Cariacus.)
 Lydekker, R. 1885 C, p. 82. (Cervus.)
 1898 A, p. 243. (Mazama.)
 Nicholson and Lydekker, 1889 A, p. 1342. (Cariacus.)
 Rafinesque, C. 1832-33, Atlantic Jour., p. 109, figure. (Odocoileus.)
 Roger, O. 1887 A. (Cariacus.)
 1896 A, p. 230. (Cervus.)
 Rüttimeyer, L. 1881 A, p. 47. (Cariacus.)
 1882 A, p. 26. (Cariacus.)
 1884 A, p. 410. (Cariacus.)
 Zittel, K. A. 1893 B, p. 401. (Cariacus.)

Dama dolichopsis (Cope).

- Cope, E. D. 1878 GG, p. 189. (Cariacus.)
 1878 H, p. 379. (Cariacus.)
 Cope and Wortman 1884 A, p. 22, pl. ii. (Cariacus.)
 Kindie, E. M. 1898 A, p. 485. (Cariacus.)
 Pleistocene; Indiana.

Dama ensifer (Cope).

- Cope, E. D. 1889 F, p. 163. (Cariacus.)
 Roger, O. 1896 A, p. 232. (Cervus.)
 Trouessart, E. L. 1898 A, p. (Cariacus.)
 Pleistocene (Equus beds); Oregon.

Dama lævicornis (Cope).

- Cope, E. D. 1896 F, p. 393. (Cariacus.)
 1899 A, p. 265, pl. xxi, fig. 5. (Cariacus.)
 Trouessart, E. L. 1898 A, p. 892. (Cariacus.)
 Pleistocene; Pennsylvania.

Dama virginiana Zimm.

- Zimmermann, E., 1777, Zool. Geog., p. 532.
 Allen, J. A. 1876 A, p. 48. (Cervus.)
 Baird, S. F. 1857 A, p. 643, text fig. 13. (Cervus.)
 Cooper, W. 1831 A, p. 207. (Cervus.)
 Cope, E. D. 1869 E, p. 176. (Cariacus.)
 1869 N, p. 742. (Cariacus.)
 1871 K, p. 176. (Cariacus.)
 1899 A, p. 266. (Cariacus.)
 Cuvier, G. 1834 A, vi, p. 63, pl. 166. (Cervus.)
 Emmons, E. 1858 B, p. 200. (Cervus.)
 Erxleben, C. P., 1777, Syst. Reg. Anim., Mamm., p. 312. (Cervus dama americanus; americanus not nomenclatorial.)
 Flower and Lydekker, 1891 A, p. 326, fig. 132. (Cariacus.)
 Hensel, R. 1859 A, p. 257, pl. xi, fig. 6. (Cariacus.)
 Kindie, E. M. 1898 A, p. 485. (Cariacus.)
 Leidy, J. 1854 I, p. 200. (Cervus.)
 1860 B, p. 109, pl. xx, figs. 1-4. (Cervus.)
 1869 A, p. 376. (Cervus virg.)
 1889 B, p. 96. ("Deer.")
 1889 E, p. 22. (Cervus.)
 1889 H, p. 6. (Cervus.)
 1892 A. (Cervus.)
 Lydekker, R. 1898 A, p. 249, pl. xx; text figs. 68, 69.
 Rafinesque, C. 1832-33, Atlantic Jour. p. 109, figure. (Odocoileus speleus.)
 Roger, O. 1896 A, p. 232. (Cervus.)
 Trouessart, E. L. 1898 A, p. 892. (Cariacus.)
 Wallis, B. L. C. 1854 A, p. 286. (Cervus.)
 Winchell, A. 1864 A, p. 223. ("Deer.")
 Wyman, J. 1862 A, p. 421. (Cervus.)
 Pleistocene and Recent. Fossil from South Carolina, New Jersey, Indiana, Kentucky, Virginia, Pennsylvania, Illinois, Mississippi.

Dama whitneyi (Allen.)

- Allen, J. A. 1876 A, p. 49. (Cervus.)
 Pleistocene; lead region of Illinois, Iowa, and Wisconsin.

CERVUS Linn. Type *C. elaphus* Linn.

Linnæus, C., 1758, Syst. Nat., ed. 10, i, p. 66.

By many of the following authors the generic name *Cervus* is employed in a more comprehensive sense than is here given it.

- Baird, S. F. 1857 A, p. 637, in part.
 Brooke, V. 1878 A.
 Cope, E. D. 1887 B, p. 398.
 Cuvier, G. 1834 A, vi, p. 43, plates.
 Flower and Lydekker 1891 A, p. 319.
 Leidy, J. 1871 C, p. 351.

- Lydekker, R. 1885 C, p. 73.
 1898 A, p. 61.
 Nicholson and Lydekker 1889 A, p. 1338.
 Nitsche, H. 1891 A.
 Owen, R. 1866 B, p. 477.
 Paull, S. 1900 A, p. 210.
 Pictet, F. J. 1853 A, p. 353.
 Rüttimeyer, L. 1884 A, p. 408.
 Trouessart, E. L. 1898 A, p. 880.
 Zittel, K. A. 1893 B, p. 401. (Elaphus.)

Cervus canadensis Erxl.

- Erleben, C. P., 1777, Syst. Reg. Anim., Mamm., p. 305. (*Cervus elaphus canadensis*.)
 Allen, J. A. 1876 A, p. 48.
 Baird, S. F. 1857 A, p. 638, text figs. 9-11.
 Cooper, W. 1831 A, p. 207.
 Cope, E. D. 1869 E, p. 178.
 1869 N, p. 742.
 Cuvier, G. 1834 A, vi, p. 49, pl. 164, figs. 13-22.
 De Kay, J. E. 1842 C, p. 120, pl. xxix, fig. 2. (*Elaphus americanus*.)
 Flower and Lydekker 1891 A, p. 322, fig. 129.
 Hall, J. 1846 B, p. 391. (*Elaphus*.)
 1887 A, p. 39. (*Elaphus*.)
 Leidy, J. 1869 A, p. 377.
 1889 H, p. 6.
 Logan, W. E. 1863 A, p. 914.
 Lydekker, R. 1898 A, p. 95, figs. 24, 25.

- Putnam, F. W., 1900, 33d Report Peabody Mus. Amer. Archæol. Ethnol., Harvard Univ., p. 275. ("Elk.")
 Roger, O. 1896 A, p. 235. (*C. americanus fossilis*.)
 Scott, W. B. 1885 C, text fig. 1.
 Trouessart, E. L. 1898 A, p. 883.
 Tscherski, J. D. 1892 A, p. 222. (*Cervus canadensis marai*; in Russia.)
 Winchell, A. 1864 A, p. 224. ("Elk.")
 Zittel, K. A. 1893 B, p. 402.
 Pleistocene and Recent. Fossil in New York, New Jersey, Kentucky, North Carolina, Florida, Ontario; also fossil in Europe and Siberia.

Cervus fortis Cope.

- Cope, E. D. 1878 C, p. 223.
 Roger, O. 1896 A, p. 235.
 Trouessart, E. L. 1898 A, p. 882.
 Pliocene (Loup Fork); Oregon.

CERVALCES Scott. Type *Cervus americanus* Harlan.

- Scott, W. B. 1885 A, p. 420.
 Cope, E. D. 1887 B, p. 398.
 1889 G, p. 132.
 Flower and Lydekker 1891 A, p. 327.
 Lydekker, R. 1898 A, pp. 51, 60. (*Alces*.)
 Nicholson and Lydekker 1889 A, p. 1341.
 Scott, W. B. 1885 D, p. 4.
 Zittel, K. A. 1893 B, p. 404.

Cervalces americanus (Harlan)

- Harlan, R., 1825 A, p. 245. (*Cervus*.)
 Cooper, W. 1831 A, p. 174. ("Cervus.")
 Cooper, Smith, and De Kay 1831 A, p. 371. (*Cervus alces?*)
 Cope, E. D. 1889 G, p. 134.
 De Kay, J. E. 1842 C, p. 120, in part. (*Elaphus*.)
 Flower and Lydekker 1891 A, p. 327.
 Godman, J. D. 1828 A, ii, pl. opp. p. 197; iii, p. 242. ("Fossil elk.")

- Harlan, R. 1834 B, p. 70. (*Cervus*.)
 1835 B, p. 275. (*Cervus*.)
 Leidy, J. 1869 A, p. 379. (*Cervus*.)
 1884 B. (*Cervus*.)
 Lydekker, R. 1898 A, p. 60, fig. 14. (*Alces scottii*.)
 Osborn, H. F. 1898 N, p. 845. (*Cervalces*.)
 1898 Q, p. 7, plate.
 Roger, O. 1896 A, p. 236. (*Cervus*.)
 Scott, W. B. 1885 A, p. 420, with 2 figures.
 1885 C, p. 174, pl. ii, text figs. 2, 5, 7.
 1885 D, p. 4, plate.
 Trouessart, E. L. 1898 A, p. 883 (*Cervus canadensis*, in part); p. 886 (*Cervalces americanus*.)
 Williston, S. W. 1897 I, p. 303. (*Cervalces? americanus?*)
 Wistar, C. 1818 A, p. 375, pl. x, figs. 4, 5. ("Cervus.")
 Pleistocene; Kentucky, New Jersey.

ALCES Jardine. Type *Cervus alces* Linn.

- Baird, S. F. 1857 A, p. 631. (*Alce*.)
 Cope, E. D. 1887 B, p. 378.
 Flower and Lydekker 1891 A, p. 326.
 Lydekker, R. 1898 A, p. 49.
 Roger, O. 1887 A.
 Rüttimeyer, L. 1881 A, p. 54.
 1882 A, p. 28.
 1884 A, p. 414.
 Scott, W. B. 1885 C.
 Zittel, K. A. 1893 B, p. 404.

Alces americanus Jardine.

- Jardine, W., 1837, Nat. Library, iii, p. 125.
 Baird, S. F. 1857 A, p. 631, text figs. 1, 2. (*Alce*.)
 Cooper, W. 1831 A, p. 207. (*Cervus alces*.)
 Flower and Lydekker 1891 A, p. 326, fig. 133. (*Alces machlis*, in part.)
 Hensel, R. 1859 A, pl. xi, fig. 2. (*C. alces* of Europe.)
 Leidy, J. 1869 A, p. 377. (*Cervus alces*.)
 Lydekker, R. 1885 C, p. 78. (*A. machlis*, in part.)
 1898 A, p. 52, pl. ii, text fig. 11. (*A. machlis*.)

- Meyer, H. 1832 A, pl. xxxvii. (*Cervus alces fossilis*, not *A. americanus*.)
 Nitsche, H. 1891 A. (*C. alces*, of Europe.)
 Richardson, J. 1854 A, p. 20, pls. xx, xxi; pl. xxii, fig. 1; pl. xxiv (*Cervus alces*); p. 102 (*Alces muswa*).
 Scott, W. B. 1885 C, p. 181, figs. 3, 4. (*A. machlis*.)
 Trouessart, E. L. 1898 A, p. 887.
 Williston, S. W. 1898 I, p. 92. (*A. americanus?*)
 Zittel, K. A. 1893 B, p. 404.
 Recent in northern portions of North America: Pleistocene; Kentucky, Kansas?, Alaska.

Alces brevitrabalis Cope.

- Cope, E. D. 1889 F, p. 162, February.
 Trouessart, E. L. 1898 A, p. 887.
 Pleistocene; Washington.

Alces semipalmatus Cope.

- Cope, E. D. 1889 F, p. 162, February.
 Roger, O. 1896 A, p. 237. (*Cervus*.)
 Trouessart, E. L. 1898 A, p. 887.
 Pleistocene; Washington.

RANGIFER H. Smith. Type *Cervus tarandus* Linn.

Smith, H., 1827, Griffith's Anim. Kingd., v, p. 304.

Baird, S. F. 1857 A, p. 633.

Brooke, V. 1878 A, p. 927.

Cope, E. D. 1887 B, p. 398.

Flower and Lydekker 1891 A, p. 324.

Lydekker, R. 1885 C, p. 79.

1898 A, p. 33.

Paulli, S. 1900 A, p. 216.

Roger, O. 1887 A.

Rütimeyer, L. 1881 A, p. 51.

1882 A, p. 27.

1884 A, p. 413.

Zittel, K. A. 1893 B, p. 404.

Rangifer caribou (Gmelin).

Baird, S. F. 1857 A, p. 633, text figs. 3-6.

Cooper, W. 1831 A, p. 207. (*Cervus tarandus*.)

Cope, E. D. 1869 N, p. 740. (*R. groenlandicus*.)

Dana, J. D. 1875 C, p. 354. (*R. tarandus*.)

Fisher, G. J. 1859 A, p. 194. ("Reindeer.")

Ledy, J. 1859 II. ("Reindeer.")

1869 A, p. 377, pl. xxviii, fig. 9. (*Cervus tarandus*.)

1879 A. (*R. caribou*, *Cervus muscatinensis*.)

1880 A.

1889 H, p. 5, pl. II, fig. 22.

Lesley, J. P. 1889 A, p. 855, figure. ("Reindeer.")

Lydekker, R. 1898 A, p. 42. (*R. tarandus caribou*.)

Mercer, H. C. 1894 A, p. 98.

Shaler, N. S. 1871 B, p. 167. (*Tarandus rangifer*.)

Trouessart, E. L. 1898 A, p. 888.

Recent; Newfoundland to Alaska; not on Arctic coasts. Pleistocene; New England, New York, New Jersey, Pennsylvania, Kentucky, Iowa, Alaska.

Rangifer tarandus (Linn.).

Linnaeus, C., 1758, Syst. Nat., 10, i, p. 67. (*Cervus*.)

Brandt, J. F. 1867 B.

Buckland, W. 1831 A, pp. 595, 597, 605, pl. iii, figs. 11-13. ("Reindeer.")

Hensel, R. 1859 A, pl. xi fig. 1. (*Cervus*.)

Lydekker, R. 1885 C, p. 79, fig. 7.

1898 A, p. 37.

Richardson, J. 1854 A, pp. 20, 115, pl. xxii, fig. 2 pl. xxiii.

Struckmann, C. 1880 A. (*Cervus*.)

Trouessart, E. L. 1898 A, p. 887.

Tscherski, J. D. 1892 A, p. 199.

Zittel, K. A. 1893 B, p. 404.

Recent in northern Europe and northern America. Pleistocene in Alaska. Has been reported from New England, New York, New Jersey, and Kentucky, but the remains probably belong to *R. caribou*.

ANTILOCAPRIDÆ.

Flower and Lydekker 1891 A, p. 333.

Gadow, H. 1898 A, p. 49. (*Cervidæ*.)

Murie, J. 1870 A.

Nicholson and Lydekker 1889 A, p. 1345.

Trouessart, E. L. 1898 A, p. 903.

ANTILOCAPRA Ord. Type *A. americana* Ord.

Baird, S. F. 1857 A, p. 665.

Flower and Lydekker 1891 A, p. 333.

Nitsche, H. 1899 A, p. 186.

Rütimeyer, L. 18. (*Dicranoceros*.)

Zittel, K. A. 1893 B, p. 417.

Antilocapra americana Ord.

Allen, Harrison, 1889 A.

Allen, J. A. 1876 A, p. 48.

Baird, S. F. 1857 A, p. 666, pl. xxv.

Murie, J. 1870 A.

Richardson, J. 1854 A, p. 131, pls. xvi-xix.

Recent; Mexico and California to British America. Pleistocene in lead region of Illinois, Iowa, and Wisconsin.

BOVIDÆ.

Baird, S. F. 1857 A, p. 664. (*Cavicornia*.)

Baur, G. 1890 B.

Branco, W. 1897 A, p. 27.

Brandt, E. 1888 A. (*Cavicornia*.)

Brooke, V. 1878 A, p. 884.

Cope, E. D. 1887 B, pp. 379, 394.

1888 X, p. 1081.

1889 C, p. 162.

Cope and Wortman 1884 A, pp. 22, 24.

Cuvier, G. 1834 A, vi, p. 217.

Flower W. H. 1874 A.

1883 D, p. 432.

Flower and Lydekker 1891 A, p. 334.

Gadow, H. 1898 A, p. 49.

Gill, T. 1872 B, pp. 8, 76.

Lydekker, R. 1885 C, p. 1.

1896 B.

1898 B.

Nicholson and Lydekker 1889 A, p. 1345.

Nitsche, H. 1899 A, p. 186.

Owen, R. 1866 B.

1868 A, p. 348.

Richardson, J. 1854 A, p. 28.

Rütimeyer, L. 1862 B.

1865 A.

1867 B. (*Cavicornia*.)

1877 A.

1878 A.

1883 A, p. 10. (*Cavicornia*.)

Sanson, A. 1878 A.

Steinmann and Döderlein 1890 A, p. 806.

Tomes, C. S. 1898 A, p. 407.

Trouessart, E. L. 1898 A, p. 904.

Turner, H. N. 1850 A.

Weyhe, — 1875 A, p. 119.

Wilekens, M. 1885 E.

Zittel, K. A. 1893 B, p. 425. (*Cavicornia*.)

ANTILOPINÆ.

Baird, S. F. 1857 A, p. 664.
 Flower and Lydekker 1891 A, p. 349. ("Rupicaprine section.")
 Nicholson and Lydekker 1889 A, p. 1346. ("Antelopes.")

Rütimeyer, L. 1867 B. (Antilopina.)
 1877 A, p. 17. (Antilopina.)
 1878 A, p. 78. ("Antilopen.")
 Zittel, K. A. 1893 B, p. 415.

NEMORHÆDUS H. Smith.

Smith, H., 1827, Griffith's Anim. Kingd., iv, p. 277.
 Flower and Lydekker 1891 A, p. 350.
 Rütimeyer, L. 1877 A, p. 43. (Nemorhedus.)
 1878 A, p. 99. (Kemas.)
 Trouessart, E. L. 1898 A, p. 964.

Nemorhædus palmeri Cragin.
 Cragin, F. W. 1899 A, p. 610, pl. lvil.
 1900 A, p. 1.
 Pleistocene; Colorado.

CAPRINÆ.

Baird, S. F. 1857 A, p. 664. (Ovinæ.)
 Flower and Lydekker 1891 A, p. 351. ("Caprine section.")
 Gill, T. 1872 B, pp. 9, 77. (Caprinæ, Ovinæ.)

Owen, R. 1868 A, p. 348. (Ovidæ.)
 Stehlin, H. G. 1893 A.
 Trouessart, E. L. 1898 A, p. 968.
 Zittel, K. A. 1893 B, p. 422. (Ovinæ.)

Ovis Linn. Type *O. aries* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 70.
 Flower, W. H. 1885 A.
 Flower and Lydekker 1891 A, p. 354.
 Owen, R. 1866 B, p. 474, figs. 323, 324.
 1868 A, p. 349, fig. 279.
 Stehlin, H. G. 1893 A, p. 71.
 Trouessart, E. L. 1898 A, p. 975.
 Zittel, K. A. 1893 B, p. 424.

Ovis mamillaris Foster.

Foster, J. W. 1837 A, p. 82, figs. 19 a, b.
 De Kay, J. E. 1842 C, p. 112.
 Leidy, J. 1869 A, p. 375.
 Roger, O. 1896 A, p. 244.
 Trouessart, E. L. 1898 A, p. 978.
 Pleistocene?; Ohio.
 A doubtful fossil.

Ovibos Blainv. Type *O. moschatus* (Zimm.).

Blainville, H. M. D., 1816, Bull. Soc. Philom., p. 76.
 Agassiz, L. 1853 A.
 Baird, S. F. 1857 A, p. 680.
 Dawkins, W. B. 1872 A.
 Flower and Lydekker 1891 A, p. 357.
 Leidy, J. 1852 F, p. 71. (Boötherium.)
 1853 A, p. 12. (Boötherium.)
 1870 M, p. 97. (Boötherium.)
 Lönnberg, E. 1900 A, p. 686.
 Marsh, O. C. 1877 E.
 Nicholson and Lydekker 1889 A, p. 1350.
 Owen, R. 1856 C, p. 124.
 Richardson, J. 1854 A, p. 120. (Bubalus.)
 Rütimeyer, L. 1868 A.
 1898 B, p. 139.
 Zittel, K. A. 1893 B, p. 424.

Ovibos appalachicolus Rhoads.

Rhoads, S. N. 1896 A, p. 248. (Bison.)
 Lucas, F. A. 1899 A, p. 756.
 Rhoads, S. N. 1897 A, p. 492.
 Pleistocene; Pennsylvania.

Ovibos bombifrons (Harlan).

Harlan, R. 1825 A, p. 271. (Bos.)
 Cooper, W. 1831 A, pp. 173, 206. (Bos.)
 Cooper, Smith, and De Kay 1831 A, p. 371. (Bos.)
 Cope and Wortman 1884 A, p. 24.
 Dawkins, W. B. 1870 A, p. 233. (Ovibos.)
 1872 A, p. 29. (Boötherium.)

De Kay, J. E. 1828 A, p. 286. (Bos.)
 1842 C, p. 110. (Bos.)
 Harlan, R. 1834 B, p. 71. (Bos.)
 1835 B, p. 275. (Bos.)
 Leidy, J. 1852 F, p. 71. (Boötherium.)
 1853 A, p. 17, pl. iv, fig. 2; pl. v, figs. 1, 2.
 (Boötherium.)
 1854 G, p. 210. (Boötherium.)
 1869 A, p. 374.
 Lydekker, R. 1885 C, p. 39.
 Meyer, H. 1835 A, p. 143. (Bos.)
 Pictet, F. J. 1853 A, p. 366.
 Roger, O. 1896 A, p. 244. (O. priscus.)
 Rütimeyer, L. 1865 A, p. 828. (O. priscus.)
 1868 A, pp. 9, 17. (O. priscus.)
 Trouessart, E. L. 1898 A, p. 984, in part only.
 Wistar, C. 1818 A, p. 379, pl. xl, figs. 10, 11. (No systematic name.)
 Pleistocene; Kentucky.

Ovibos cavifrons Leidy.

Leidy, J. 1852 F, p. 71. (Boötherium or Ovibos.)
 Agassiz, L. 1851 B, p. 179. (Bos bombifrons.)
 Cooper, W. 1831 A, pp. 173, 206. (Bos pallasi.)
 Cope and Wortman 1884 A, p. 24.
 Dawkins, W. B. 1870 A, p. 233.
 1872 A, p. 29. (Boötherium.)
 De Kay, J. E. 1828 A, p. 291, pl. vi. (Bos pallasi.)
 1842 C, p. 110. (Bos pallasi.)
 Giebel, C. G. 1847 A, p. 154. (B. pallasi.)

- Godman, J. D. 1828 A, p. 244. ("De Kay's fossil ox.")
- Harlan, R. 1834 B, p. 72. (*Bos pallasi*.)
1835 B, p. 276. (*B. pallasi*.)
- Ledy, J. 1853 A, p. 12, pl. iii, figs. 1, 2; pl. iv, fig. 1. (*Boötherium*.)
1854 G, pp. 209, 210. (*Boötherium*.)
1869 A, p. 374.
1870 L.
1870 M, p. 97. (*Boötherium*.)
- Lydekker, R. 1885 C, p. 40. (*O. bombifrons*, in part.)
1898 B, p. 148. (*O. bombifrons*, in part.)
- McGee, W. J. 1887 A, p. 217.
- Meyer, H. 1835 A, p. 155. (*B. pallasi*.)
- Pictet, F. J. 1853 A, p. 366. (*Bos pallasi*.)
- Richardson, J. 1854 A, pp. 25, 120, pl. xi, figs. 2-4. (*Ovibos maximus*.)
- Rütimeyer, L. 1865 A, p. 327. (*O. prisceus*.)
- St. John, S. 1851 A, p. 235. (*Bos bombifrons*.)
- Trouessart, E. L. 1898 A, p. 986. (*O. bombifrons*, in part.)
- Wallis, B. L. C. 1854 A, p. 286. (*Boötherium*.)
- Zittel, K. A. 1893 B, p. 425. (*O. prisceus*.)
Pleistocene; Indian Territory, Missouri, Kentucky, Ohio, Iowa, Alaska.

Ovibos moschatus (Zimm.).

- Zimmermann, E., 1780, *Geog. Gesch.*, ii, p. 86. (*Bos*.)
- Baird, S. F. 1857 A, p. 681.
- Buckland, Wm. 1831 A, pp. 597, 605. ("Musk-ox.")
- Cuvier, G. 1834 A, vi, p. 311, pl. cxxx, figs. 15-17. (*Bos*.)
- Dall, W. H. 1869 A. ("Musk-ox.")
- Dawkins, W. B. 1872 A.
1883 A.
- Gracap, L. P. 1896 A, p. 994.
- Ledy, J. 1854 G, p. 210.
1869 A, p. 373.
- Lönnerberg, E. 1900 A, p. 686, figures.
- Lydekker, R. 1888 C, p. 38.
1898 B, p. 142.
- Owen, R. 1856 C, p. 124, figs. 3-6. (*Bubalus*.)
- Richardson, J. 1854 A, pp. 22, 66, 119, pls. ii-v; pl. xi, figs. 1-5; pl. xiv, fig. 5.
- Roger, O. 1896 A, p. 244.
- Rütimeyer, L. 1868 A, p. 6, figs. 1, 2.
- Trouessart, E. L. 1898 A, p. 984.
- Tscherski, J. D. 1892 A, p. 153, pl. iv, figs. 3-6.
- Woodward, H. 1894 A, l.
- Recent; northern North America, Greenland. Pleistocene: Alaska, Greenland, northern Europe, and Asia.

BOVINE.

- Flower and Lydekker 1891 A, p. 360. ("Bovine section.")
- Gill, T. 1872 B, pp. 8, 77.
- Roger, O. 1896 A, p. 244.

- Stehlin, H. G. 1893 A.
- Trouessart, E. L. 1898 A, p. 965.
- Zittel, K. A. 1893 B, p. 425.

BISON H. Smith. Type *Bos bison* Linn.

- Smith, H., 1827, in Griffith's *Anim. Kingd.*, v, p. 373.
- Allen, J. A. 1876 B.
- Baird, S. F. 1857 A, p. 682. (*Bos*.)
- Brandt, F. 1867 C, p. 150.
- Cope, E. D. 1869 G, p. 131.
- Desor, E. 1852 A, p. 58. (*Harlanus*.)
- Flower and Lydekker 1891 A, p. 360. (*Bos*.)
- Ledy, J. 1871 C, p. 344.
- Lucas, F. A. 1897 A.
1899 A.
- Lydekker, R. 1898 B, p. 5 (*Bos*.); p. 50 (*Bison*, as subgenus).
- Marsh, O. C. 1877 E.
- Owen, R. 1846 A, p. 94. (*Harlanus*, type *H. americanus*=*B. latifrons*.)
1847 D, p. 18. (*Harlanus*.)
1856 C, p. 129.
- Pictet, J. F. 1853 A, p. 303. (*Harlanus*.)
- Rütimeyer, L. 1865 A, p. 335.
- Trouessart, E. L. 1898 A, p. 994.
- Tscherski, J. D. 1892 A, p. 75.
- Zittel, K. A. 1893 B, p. 430.

Bison alleni Marsh.

- Marsh, O. C. 1877 D, p. 252.
- Blake, W. P. 1898 A, pp. 71, 72.
- Cope, E. D. 1877 Y, p. 629.
1894 A, p. 68. (*Bos cramplanus*; no description.)

- Cope, E. D. 1894 H, p. 456, pl. xxii, figs. 1-4. (*Bos cramplanus*.)
- King, C. 1878 A, p. 430.
- Lucas, F. A. 1897 A,
1899 A, pp. 756, 765, pls. lxxvii-lxxx; text fig. 2; text fig. 1^a.
- Matthew, W. D. 1899 A, p. 74.
- Rhoads, S. N. 1897 A, p. 488, pl. xii, fig. 5. (*Bos cramplanus*.)
- Roger, O. 1896 A, p. 246.
- Trouessart, E. L. 1898 A, p. 996.
- Williston, S. W. 1897 I, p. 302. (*B. cramplanus*, *B. alleni*.)
1898 I, p. 92. (*B. cramplanus*, *B. alleni*.)
Miocene (Loup Fork); Kansas, Oklahoma, Idaho.

Bison antiquus Ledy.

- Ledy, J. 1852 H, p. 117.
- Allen, J. A. 1876 B, p. 21, pl. iii, figs. 1, 3, 6, 8, 10.
- Cope, E. D. 1869 E, p. 176. (*Bos antiquus*?)
1894 H, p. 457. (Syn. of *Bos americanus*.)
- Ledy, J. 1853 A, p. 11, pl. ii, fig. 1.
1854 G, p. 210.
1867 A, p. 85. (*B. latifrons*.)
1869 A, p. 371. (*B. latifrons*, in part.)
1870 H, p. 13. (*Bos*.)
1873 B, pp. 253, 318, in part; pl. xxviii, figs. 4, 5, 6, 7, 7? (*B. latifrons*.)

Lucas, F. A. 1899 A, p. 759. pl. lxvii-lxx.

1899 B, p. 17.

Lydekker, R. 1898 B, p. 61. (Syn. of *Bos priscus*.)

Middleton and Moore 1900 A, p. 178, plate.

Rhoads, S. N. 1897 A, p. 484 (*B. antiquus*); p. 501, pl. xii, fig. 2 (*B. californicus*).

Richardson, J. 1854 A, p. 139.

Rüttmeyer, L. 1865 A, p. 336.

1868 A, p. 60. (*B. priscus*.)

Zittel, K. A. 1898 B, p. 430.

Pleistocene; Kentucky, Virginia?, Illinois?, California.

Bison bison (Linn.).

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 72. (*Bos*.)

Unless otherwise indicated, the following authors refer to this species under the name *Bison americanus*.

Allen, J. A. 1876 B, pl. xi, fig. 2; pl. iii, figs. 2, 4, 7, 9, 11; pl. v, figs. 1-8; pl. vi, figs. 1-8; pl. vii, figs. 1-6, 9, 10; pl. viii, figs. 1-11; pl. ix, figs. 1-8; pl. x, figs. 1-12; pl. xi, figs. 1-10; pl. xii, figs. 1-6.

Baird, S. F. 1857 A, p. 682. (*Bos*.)

Cooper, W. 1831 A, p. 43. (*Bos americanus*.)

Cooper, Smith, and De Kay 1831 A, p. 371. (*Bos americanus*.)

Cope and Wortman 1884 A, p. 24.

De Kay, J. E. 1842 C, p. 110.

Knight, — 1835 A, p. 166. ("Buffalo.")

Ledy, J. 1853 A, p. 5.

1854 G, p. 210.

1869 A, p. 371.

1870 K, p. 69. (*Bos americanus*.)

1880 A, p. 347.

1889 E, p. 22.

1889 H, p. 5.

1892 A.

Lydekker, R. 1898 B, p. 79. (*Bos*.)

Mercer, H. C. 1894 A, p. 98.

Packard, A. S. 1867 A, pp. 243, 245, 246, 257, 261.

Rhoads, S. N. 1897 A, p. 484, pl. xii, fig. 1.

Richardson, J. 1854 A, p. 139, pl. vi, figs. 3, 4; pl. vii, figs. 4, 5; pl. viii, figs. 9-12.

Rüttmeyer, L. 1865 A, p. 335.

1867 B, p. 99.

1868 A, p. 58.

Shaler N. S. 1876 A, p. 234.

Trouessart, E. L. 1898 A, p. 995.

Underwood, L. 1890 A, p. 963.

Williston, S. W. 1897 I, p. 302.

1898 I, p. 91.

Wyman, J. 1862 A, p. 421. ("Bos.")

Within recent times occupying a large portion of N. America. Pleistocene; Illinois, Iowa, Wisconsin, Kansas, Colorado, Pennsylvania, New York, South Carolina, Kentucky.

Bison crassicornis Richardson.

Richardson, J. 1854 A, pp. 40, 139, pl. ix; pl. xi, fig. 6; pl. xii, figs. 1-4; pl. xiii, figs. 1, 2; pl. xv, figs. 1-4.

Allen, J. A. 1876 B, pp. 14, 15, 21, ?pl. viii, fig. 12. (Syn. of *B. antiquus*.)

Buckland, W. 1831 A, p. 595, pl. iii, figs. 1-7. (*Bos urus*.)

Cope, E. D. 1894 H, p. 457. (*Bos*.)

Ledy, J. 1854 G, p. 210. (*Bison priscus*, *B. crassicornis*.)

1869 A, p. 371 (*Bison priscus*); p. 372 (Syn. of *Bison latifrons*).

Lucas, F. A. 1897 A.

1899 A, p. 760, pls. lxxiii-lxxvi; tpl. lxxiii; text figs. 1, 2.

1899 B, p. 18.

Lydekker, R. 1885 C, pp. 25, 26. (*Bos bonasus*, var. *priscus*.)

1898 B, p. 61. (Syn. of *Bos priscus*.)

Rhoads, S. N. 1897 A, p. 500, pl. xii, figs. 3, 6. (*B. alaskensis*.)

Richardson, J. 1854 A, pp. 83, 139, pl. vi, figs. 5, 6; pl. vii, fig. 1; pl. x, figs. 1-6. (*B. priscus*.)

Woodward, H. 1894 A. (*B. priscus*.)

Pleistocene; Alaska.

Bison ferox Marsh.

Marsh, O. C. 1877 D, p. 252.

Blake, W. P. 1898 A, pp. 71, 72.

Cope, E. D. 1877 Y, p. 629.

King, C. 1878 A, p. 430.

Lucas, F. A. 1899 A, p. 766, pl. lxxxi.

Matthew, W. D. 1899 A, p. 74.

Rhoads, S. N. 1897 A, pp. 489, 500.

Roger, O. 1896 A, p. 246.

Trouessart, E. L. 1898 A, p. 995.

Miocene (Loup Fork); Nebraska.

Bison latifrons (Harlan.)

Harlan, R. 1825 A, p. 273. (*Bos*.)

Allen, J. A. 1876 B, p. 7, pl. i; pl. ii, figs. 1-4; pl. vii, fig. 11.

Blainville, H. M. D. 1864 A, iv AA, p. 187. (*Sus americanus*.)

Blake, W. P. 1898 A, pp. 66, 71 (*Bos arizonica*); p. 69 (*Bison latifrons*).

1898 B, p. 247. (*B. latifrons*, *B. arizonica*.)

Bojanus, L. H. 1827 A, p. 427. (Syn. of *Urus priscus*.)

Brandt, F. 1867 C.

Broadhead G. C. 1870 B. (*Bos*.)

Carpenter, W. 1846 A, p. 246, figs. 1, 2. ("Extinct ox.")

Collett, J. In Cope and Wortman 1884 A, p. 24, footnote.

Cooper, W. 1831 A, p. 174. (*Bos*.)

Cope, E. D. 1884 G, p. 21. (*Bos*.)

1889 F.

1899 G, p. 131.

1894 H, p. 457. (*Bos*.)

Cope and Wortman 1884 A, p. 24.

Couper, J. H. 1842 A, p. 216. ("Bos," *Sus americanus*.)

Cuvier, G. 1808 B, p. 382, pl. xxxiv, fig. 2. ("Aurochs.")

1834 A, vi, p. 287, pl. clxxiii, fig. 2. ("Aurochs.")

De Kay, J. E. 1828 A, p. 286. (*Bos*.)

1842 C, p. 110. (*Bos*.)

Faujas, St. F. 1802 A, p. 190, pl. xliii. ("Beauf fossil.")

Flower and Lydekker 1891 A, p. 364. (*Bos*.)

Gebel, C. G. 1847 A, p. 153 (*Bos priscus*, in part); p. 174 (*Sus americanus*).

- Godman, J. D. 1828 A, III, p. 243, pls. opp. pp. 242, 245. ("Latifrons.")
- Harlan, R. 1834 B, p. 71. (Bos.)
- 1835 B, p. 276. (Bos.)
- 1842 B, p. 143, pl. III, fig. 1. (?Sus americana.)
- Leidy, J. 1852 H, p. 117.
- 1853 A, p. 8, pls. i, II, figs. 2-7.
- 1854 C, p. 89.
- 1854 G, p. 210.
- 1860 B, p. 109, pl. XVII, figs. 15, 16. (Identification doubtful.)
- 1867 A, p. 85.
- 1869 A, p. 371.
- 1871 C, p. 345, in part.
- 1889 C, p. 12.
- Lucas, F. A. 1899 A, p. 767, pls. lxxxiii, lxxxvii.
- Lydekker, R. 1885 C, p. 27.
- 1898 B, p. 92. (Bos.)
- Meyer, H. 1835 A, p. 141. (Syn. of Bos priscus.)
- Owen, R. 1846 A, p. 94. (Harlanus americanus.)
- 1847 D, p. 20, pl. VI. (H. americanus.)
- Peale, R. 1803 A, p. 325, pl. VI. ("Great Indian buffalo.")
- Pictet, F. J. 1853 A, p. 366. (Bos.)
- Rafinesque, C. S. 1831, Enum. remark, nat. objects (Taurus latifrons, T. gigas); 1832-33, Atlantic Jour., p. 28 (Taurus latifrons).
- Rhoads, S. N. 1897 A, p. 486, pl. XII, fig. 4.
- Roger, O. 1896 A, p. 208 (Harlanus americanus.)
- p. 246 (Bison latifrons.)
- Rütimeyer, L. 1865, p. 336.
- 1868 A, p. 60. (B. priscus.)
- Sanson, A. 1878 A, p. 757. (Bos.)
- Shaler, N. S. 1876 A, p. 235. (Bos.)
- Smith, H. P. 1887 A, p. 19, pl. I.
- Stehlin, H. G. 1899 A, pp. 21, 118. (Platygonus siegleri.)
- Trouessart, E. L. 1898 A, p. 817 (Harlanus americanus); p. 995 (Bison latifrons).
- Wallis, B. L. C. 1854 A, p. 286.
- Whitney, J. D. 1879 A, p. 247.
- Wilckens, M. 1885 B, p. 270. (Sus americana.)
- Zittel, K. A. 1893 B, p. 430.
- Pleistocene; Kentucky, South Carolina?, Mississippi, Ohio, Georgia?, Texas, Florida, Arizona, Mexico.

Bison occidentalis Lucas.

- Lucas, F. A. 1898 D, p. 678.
- Allen, J. A. 1876 B, p. 34, pl. IV. (B. antiquus.)
- ?Dall, W. H. 1899 A, p. 136. ("Buffalo.")
- ?Hay, R. 1885 A, p. 98. ("Bison.")
- ?Leidy, J. 1870 K, p. 69. (Bos americanus.)
- Lucas, F. A. 1899 A, p. 758, pls. lxxv, lxxvi.
- 1899 B, p. 17, pls. VIII, IX.
- Stewart, A. 1897 B, p. 127, pl. XVII; text fig. 1. (B. antiquus.)
- Williston, S. W. 1897 I, p. 302. (B. antiquus.)
- 1898 I, p. 91. (B. antiquus.)
- Pleistocene; Alaska, Kansas.
- Bos bovis*.—This species has been reported from Ashley River, South Carolina, by F. S. Holmes (1860 B, p. 203). Leidy (1869 A, p. 443), characterizes it as a doubtful fossil. See also Holmes, F. S. 1858 A, in which paper are found extracts from letters written by Louis Agassiz and Dr. Leidy.

Order ANCYLOPODA Cope.

- Cope, E. D. 1889 I, p. 153.
- Ameghino F. 1894 A, p. 311.
- Cope, E. D. 1889 C.
- 1891 N, p. 76.
- 1898 B, p. 120. (Chalicotheria.)
- Gadow, H. 1898 A, p. 47.
- Hay, O. P. 1899 F, p. 682.
- Marsh, O. C. 1892 D, p. 448. (Chalicotheria.)
- 1897 B, p. 144. (Chalicotheria.)
- Osborn, H. F. 1893 D, p. 43.

- Osborn, H. F. 1893 F.
- 1893 J. (Perissonychia.)
- 1893 K.
- 1898 A, p. 146.
- Osborn and Wortman 1898 A, p. 4. (Ord. Ancylopoda; subord. Perissonychia.)
- Roger, O. 1896 A, p. 196.
- Trouessart, E. L. 1898 A, p. 693.
- Woodward, A. S. 1898 B, p. 307.

Superfamily CHALICOTHERIOIDEA.

- Gill, T. 1872 B, p. 71.
- Osborn, H. F. 1898 I, p. 79.

- Scott and Osborn 1890 B, p. 99.

CHALICOTHERIIDÆ.

- Gill, T. 1872 B, pp. 8, 72.
- Ameghino, F. 1891 D, p. 284.
- 1894 A, p. 316.
- Cope, E. D. 1879 C, p. 228.
- 1881 G, pp. 378, 379, 395.
- 1881 O.
- 1884 O, pp. 615, 694.
- 1887 N.
- 1891 L, p. 1117.
- Earle, C. 1892 C, p. 276.
- Flower and Lydekker 1891 A, p. 413.
- Haeckel, E. 1895 A, p. 546. (Chalicotherida.)
- Lydekker, R. 1886 A, p. 161.
- Marsh, O. C. 1877 D, p. 249. (Moropodidæ.)

- Marsh, O. C. 1877 E. (Moropodidæ.)
- 1897 B, p. 145. (Moropodidæ.)
- Nicholson and Lydekker 1889 A, p. 1372.
- Osborn, H. F. 1891 D.
- 1892 C.
- 1893 D, p. 43.
- Osborn and Wortman 1898 A, p. 13.
- Roger, O. 1896 A, p. 196.
- Schlosser, M. 1886 A, p. 253.
- 1886 B, p. 18.
- Steinmann and Döderlein 1890 A, p. 776.
- Wortman, J. L. 1882 B, p. 723.
- 1883 A, p. 709.
- Zittel, K. A. 1893 B, p. 308.

CHALICOTHERIUM Kaup. Type *C. goldfussi* Kaup.

Kaup, J. J. 1833, Oss. Foss. Darmstadt, pt. II, p. 4.

Ami, H. M. 1891 A.

Bronn, H. G. 1838 A, p. 1201, pl. xlv, fig. 2.

Cope, E. D. 1884 O, p. 695.

1887 N, p. 1061.

1889 P, p. 658.

1891 A, p. 7.

Depéret, C. 1892 A, p. 61.

Earle, C. 1892 C, p. 276.

Filhol, H. 1891 A, p. 294.

Flower and Lydekker 1891 A, p. 413.

Gaudry, A. 1875 B.

1877 A.

Kowalevsky, W. 1873 A, p. 175.

Lydekker, R. 1886 A, p. 162.

Marsh, O. C. 1874 A, p. 82.

1877 E.

1884 F, p. 172.

1897 B, p. 143.

Nicholson and Lydekker 1889 A, p. 1373.

Osborn, H. F. 1888 D.

1891 D, p. 911.

1892 C.

1892 G.

Osborn, H. F. 1893 D, pp. 6, 43.

1893 F, fig. 1.

1893 K.

Osborn and Wortman 1893 A.

Pictet, F. J. 1853 A, p. 337.

Schlosser, M. 1883 A.

1886 B, p. 19.

1893 B, p. 659.

Scott, W. B. 1891 A, p. 3.

1891 D, p. 90.

Scott and Osborn 1890 B, p. 99.

Steinmann and Döderlein 1890 A, p. 778.

Trouessart, E. L. 1898 A, p. 697.

Wortman, J. L. 1883 A, p. 710.

Zittel, K. A. 1893 B, p. 312.

Chalicotherium bilobatum Cope.

Cope, E. D. 1889 I, p. 151.

1891 A, p. 8, pl. iv, fig. 1.

Matthew, W. D. 1899 A, p. 58.

Osborn and Wortman 1893 A, p. 2.

Roger, O. 1896 A, p. 197.

Trouessart, E. L. 1898 A, p. 698.

Oligocene (White River); Canada.

MOROPUS Marsh. Type *M. distans* Marsh.

Marsh, O. C. 1877 D, p. 249.

Flower and Lydekker 1891 A, pp. 190, 413.

Marsh, O. C. 1877 E, p. 261.

1892 D, p. 448.

1897 B, p. 144.

Matthew, W. D. 1899 A, p. 72.

Nicholson and Lydekker 1889 A, p. 1373.

Osborn, H. F. 1891 D, p. 911.

1893 D, p. 43.

1893 F, p. 122.

Osborn and Wortman 1893 A, p. 2. (Syn. of Chalicotherium.)

Scott, W. B. 1893 B, p. 1.

Wortman, J. L. 1897 B, p. 60.

Zittel, K. A. 1893 B, p. 314.

Moropus distans Marsh.

Marsh, O. C. 1877 D, p. 249.

King, C. 1878 A, p. 424.

Matthew, W. D. 1899 A, p. 63.

Osborn, H. F. 1893 F, p. 122.

Roger, O. 1896 A, p. 197.

Trouessart, E. L. 1898 A, p. 698.

Miocene (John Day); Oregon.

Moropus elatus Marsh.

Marsh, O. C. 1877 D, p. 250.

King, C. 1878 A, p. 430.

Matthew, W. D. 1899 A, p. 72.

Osborn, H. F. 1893 F, p. 122.

Roger, O. 1896 A, p. 197.

Scott and Osborn 1890 B, p. 99, fig. 18. (Chalicotherium.)

Trouessart, E. L. 1898 A, p. 698.

Zittel, K. A. 1893 B, p. 315, fig. 255.

Miocene (Loup Fork); Nebraska.

Moropus senex Marsh.

Marsh, O. C. 1877 D, p. 250.

King, C. 1878 A, p. 424.

Matthew, W. D. 1899 A, p. 63.

Osborn, H. F. 1893 F, p. 122.

Roger, O. 1896 A, p. 197.

Trouessart, E. L. 1898 A, p. 698.

Miocene (John Day); Oregon.

SPHENOCCELUS Osb. Type *S. uintensis* Osb.

Osborn, H. F. 1896 A, p. 98.

A genus of doubtful position.

Sphenoccelus uintensis Osb.

Osborn, H. F. 1896 A, p. 98. figs. 12-15.

Matthew, W. D. 1899 A, p. 50.

Roger, O. 1896 A, p. 197.

Eocene (Uinta); Utah.

Order AMBLYPODA Cope.

Cope, E. D. 1875 C, p. 28.

1875 M.

1877 K, p. 179.

1877 L, p. 619. (Protencephala, in part.)

1877 S. (Protoencephala, in part; Amblypoda.)

1881 J.

1882 A (Amblypoda); p. 447 (Hyodontia.)

1882 E, pp. 165, 177.

1882 Y.

1883 D.

1884 E.

1884 O, pp. 167, 378, 507.

1884 EE.

1885 F.

1885 O.

1886 C, p. 616.

1886 K, p. 721.

1887 N. (Amblypoda, Hyodontia.)

1887 S, p. 459.

1888 F.

1889 C.

1889 R, p. 877.

1891 N, p. 84.

1898 B, p. 124.

Cope and Wortman 1884 A, p. 12.

Earle, C. 1892 B.

Flower, W. H. 1876 B, xiii, p. 388.

1883 D, p. 426.

Flower and Lydekker 1891 A, p. 437.

Gadow, H. 1898 A, p. 45.

Haeckel, E. 1895 A, p. 541.

Hay, O. P. 1899 F, p. 682.

Lydekker, R. 1885 E, p. 469.

Lydekker, R. 1886 A, p. 175.

1896 B, p. 173.

Marsh, O. C. 1884 F, pp. 173, 193. (Amblydactyla.)

1892 C, p. 323. (Amblydactyla.)

1893 C, p. 324. (Amblydactyla.)

Nicholson and Lydekker 1889 A, p. 1383.

Osborn, H. F. 1888 F.

1890 D, p. 588.

1893 A, pp. 383, 459.

1893 D.

1896 A, p. 146.

1896 H.

1900 C, p. 567.

Roger, O. 1896 A, p. 155.

Rütimeyer, L. 1890 A, p. 16.

Science 1885 A, pp. 489, 490. (Amblypoda vs. Amblydactyla.)

Schlosser, M. 1887 A.

1888 A, p. 586.

1889 A.

1890 C.

1890 D.

Scott, W. B. 1886 A, p. 303.

1892 A, p. 489.

Steinmann and Döderlein 1890 A, p. 762.

Tomes, C. S. 1898 A, p. 440.

Trouessart, E. L. 1898 A, p. 712.

Weithofer, K. A. 1888 B.

Woodward, A. S. 1898 B, p. 292.

Wortman, J. L. 1882 B, p. 721.

1885 A, p. 297.

Zittel, K. A. 1893 B, pp. 207, 432, 725.

[Genera of uncertain position, possibly ancestral to the *Amblypoda*.]SYNCONODON Osb. Type *S. sexcuspis* Osb.

Osborn, H. F. 1898 H, p. 171.

Synconodon sexcuspis Osb.

Osborn, H. F. 1898 H, pp. 171, 182, fig. 1 C.

Osborn, H. F. 1893, p. 320, pl. viii, fig. C. (No name.)

Trouessart, E. L. 1899 A, p. 1346.

Cretaceous (Laramie) Wyoming.

ECTOCONODON Osb. Type *E. petersoni* Osb.

Osborn, H. F. 1898 H, p. 171.

Ectoconodon petersoni Osb.

Osborn, H. F. 1898 H, pp. 171, 182, fig. 1 F.

Osborn, H. F. 1893, p. 320, pl. viii, fig. F. (No name.)

Trouessart, E. L. 1899 A, p. 1346.

Cretaceous (Laramie) Wyoming.

PROTOLAMBDA Osb. Type *P. hatcheri* Osb.

Osborn, H. F. 1898 H, p. 172.

Protolambda hatcheri Osb.

Osborn, H. F. 1898 H, pp. 172, 182, fig. 1 A.

Osborn, H. F. 1893, p. 320, pl. viii, fig. A. (No name.)

Trouessart, E. L. 1899 A, p. 1346.

Cretaceous (Laramie) Wyoming.

Suborder TALIGRADA Cope.

Cope, E. D. 1883 Z.

1884 O, p. 600.

1884 EE, p. 1111.

1889 R, p. 877.

1898 B, p. 124.

Flower and Lydekker 1891 A, p. 436.

Nicholson and Lydekker 1889 A, p. 1386.

Osborn, H. F. 1898 H, pp. 177, 180, 181.

Osborn and Earle 1895 A, p. 43.

Wortman, J. L. 1885 A, p. 296.

PERIPTYCHIDÆ.

Cope, E. D. 1882 D.

1882 A, pp. 446, 447.

1883 O.

1884 O, pp. 384, 385.

1884 AA, pp. 793, 794.

1887 N, p. 936.

1888 K, p. 162.

1889 C, p. 177.

1897 B.

Earle, C. 1893 D, p. 51.

Haeckel, E. 1895 A, p. 534. (Periptychida.)

Lydekker, R. 1886 A, p. 172.

Matthew, W. D. 1897 C, pp. 262, 294, 295.

1899 A, p. 29.

Nicholson and Lydekker 1889 A, pp. 1323, 1379.

Osborn, H. F. 1898 A, p. 146.

1898 H, p. 181.

Osborn and Earle 1895 A, pp. 47, 52, 61.

Pavlov, M. 1887 A, p. 354.

Roger, O. 1896 A, p. 164.

Schlosser, M. 1886 B.

1888 A, p. 585.

1890 C.

Scott, W. B. 1892 A, p. 428.

Steinmann and Döderlein 1890 A, p. 750.

Zittel, K. A. 1893 B, p. 216.

PERIPTYCHINÆ.

Osborn and Earle 1895 A, p. 52.

Matthew, W. D. 1897 C, pp. 295, 296.

Osborn, H. F. 1898 H, p. 182.

Trouessart, E. L. 1898 A, p. 722.

PERIPTYCHUS Cope. Type *P. carinidens* Cope.

Cope, E. D. 1881 H, p. 484.

1881 H, p. 487. (Catathlæus, type *C. rhabdodon*.)

1881 N.

1881 U. (Catathlæus.)

1882 A, p. 447.

1882 E, p. 158.

1882 F, p. 96. (Periptychus, Catathlæus.)

1882 DD.

1883 G.

1883 O.

1883 AA.

1884 E.

1884 O, pp. 382, 387.

1884 AA, pp. 794, 796.

1884 EE, p. 1120.

1887 I, p. 658.

1894 E, p. 868.

Earle, C. 1893 D.

Flower and Lydekker 1891 A, p. 439.

Lydekker, R. 1886 A, p. 172.

Matthew, W. D. 1899 A, p. 28.

Nicholson and Lydekker 1889 A, p. 1379.

Osborn, H. F. 1888 H.

1890 D, p. 532.

1893 B, p. 326.

1898 H, pp. 181, 186.

Osborn and Earle 1895 A, p. 53.

Pavlov, M. 1887 A, p. 354.

Schlosser, M. 1886 B.

Scott, W. B. 1892 A, p. 428.

Steinmann and Döderlein 1890 A, p. 750.

Wortman, J. L. 1886 A, p. 470.

Zittel, K. A. 1893 B, p. 217.

Periptychus carinidens Cope.

Cope, E. D. 1881 N, p. 337.

1881 H, p. 484.

1883 M, p. 561.

1884 O, pp. 403, pl. xxliid, figs. 14, 15; pl. xxiv, fig. 5; pl. xxva, fig. 16.

1884 AA, p. 801.

Cope, E. D. 1888 CC, p. 305 (*P. carinidens*); pp. 305, 354 (*P. brabensis*).

Matthew, W. D. 1897 C, pp. 264, 297.

1899 A, p. 29.

Osborn, H. F. 1898 H, p. 182.

Osborn and Earle 1895 A, p. 55. (*P. brabensis*.)

Roger, O. 1896 A, p. 165.

Trouessart, E. L. 1898 A, p. 722.

Eocene (Torrejon); New Mexico.

Periptychus coarctatus Cope.

Cope, E. D. 1883 Q, p. 168.

1884 K, p. 309.

1884 O, explan., pl. xxixd, figs. 7, 8.

1884 AA, p. 802, fig. 10.

1885 J, p. 337.

1888 CC, pp. 305, 354. (*P. coarctatus*, *C. brabensis*.)

Matthew, W. D. 1897 C, p. 296.

1899 A, p. 28.

Osborn, H. F. 1898 H, p. 182.

Osborn and Earle 1895 A, p. 54.

Roger, O. 1896 A, p. 165. (*P. coarctatus*, *P. brabensis*.)

Eocene (Puerco); New Mexico.

Periptychus rhabdodon Cope.

Cope, E. D. 1881 U, p. 829. (Catathlæus.)

1881 H, p. 487. (Catathlæus.)

1882 C, p. 465.

1883 G, p. 564, pl. ii, figs. 2, 3.

1884 K, p. 309.

1884 O, p. 391, pl. xxliif; pl. xxliig, figs. 1-11; pl. lviiif, figs. 1, 2.

1884 AA, p. 794, figs. 2, 6-9.

1887 I, p. 658.

1887 S, p. 268, fig. 44.

1888 CC, p. 305.

Lydekker, R. 1886 A, p. 174, figs. 24, 25.

Matthew, W. D. 1897 C, pp. 264, 296, 320.

1899 A, p. 29.

Osborn, H. F. 1890 D, p. 533, diagrams 6, 7.

Osborn, H. F. 1898 H, p. 182.
 Osborn and Earle 1895 A, p. 53.
 Pavlow, M. 1887 A, p. 359, figs. 2, 5a.
 Roger, O. 1896 A, p. 165.

Schlosser, M. 1886 B, p. 35.
 Trouessart, E. L. 1898 A, p. 722.
 Zittel, K. A. 1893 B, p. 218, figs. 152, 153, 156, 157.
 Eocene (Torrejon); New Mexico.

ECTOCOONUS Cope. Type *Periptychus ditrignonus* Cope.

Cope, E. D. 1884 AA, p. 796.

1884 E, p. 313.

1884 O, p. xxxv.

1888 CC, p. 355.

Osborn, H. F. 1893 B, p. 325.

1898 H, p. 173.

Osborn and Earle 1895 A, p. 56.

Schlosser, M. 1886 B, p. 37.

Zittel, K. A. 1893 B, p. 218.

Ectoconus ditrignonus Cope.

Cope, E. D. 1882 C, p. 465. (*Periptychus*.)

1883 Q, p. 168. (*Conoryctes*.)

1883 EE, p. 968. (*Conoryctes*.)

Cope, E. D. 1884 A, p. 796. (*Ectoconus*.)

1884 O, p. xxxv (*Ectoconus*): p. 404, pl.

xxxg, fig. 12 (*Periptychus*); explan. pl.

xxixd, figs. 2-6 (*Conoryctes*.)

1884 AA, p. 797, figs. 4, 5.

1888 CC, p. 356.

Matthew, W. D. 1897 C, pp. 264, 320.

1899 A, p. 28.

Osborn, H. F. 1898 H, p. 182.

Osborn and Earle 1895 A, p. 56.

Roger, O. 1896 A, p. 165.

Schlosser, M. 1886 B, p. 37, pl. vi, figs. 30, 31.

Trouessart, E. L. 1898 A, p. 723.

Eocene (Puerco); New Mexico.

ANISONCHINÆ.

Osborn and Earle 1895 A, p. 52.

Matthew, W. D. 1897 C, pp. 295, 297.

Osborn, H. F. 1898 H, p. 182.

Trouessart, E. L. 1898 A, p. 720.

HAPLOCONUS Cope. Type *H. lineatus* Cope.

Cope, E. D. 1882 V, p. 417.

1882 C, p. 466.

1882 F, p. 96.

1884 O, pp. 386, 416.

1884 AA, p. 795.

1887 I, p. 657.

Lydekker, R. 1886 A, p. 175.

Matthew, W. D. 1897 C, p. 298.

Osborn and Earle 1895 A, p. 58.

Pavlow, M. 1887 A.

Schlosser, M. 1886 B, p. 37.

Steinmann and Döderlein 1890 A, p. 750.

Zittel, K. A. 1893 B, p. 216.

Haploconus angustus Cope.

Cope, E. D. 1881 U, p. 831. (*Miocænus*.)

1881 H, pp. 490, 491. (*Miocænus*.)

1882 V, p. 418.

1884 O, p. 416, pl. lvii, fig. 6.

1887 I.

1888 CC, p. 804.

Matthew, W. D. 1897 C, p. 298. (Syn. of *H. lineatus*.)

Roger, O. 1896 A, p. 164 (*H. angustus*): p. 250 (*Tricentes angustus*.)

Trouessart, E. L. 1898 A, p. 720. (Syn. of *H. lineatus*.)

Eocene (Torrejon); New Mexico.

Haploconus corniculatus Cope.

Cope, E. D. 1888 CC, p. 349.

Matthew, W. D. 1897 C, p. 298.

1899 A, p. 29.

Roger, O. 1896 A, p. 165.

Trouessart, E. L. 1898 A, p. 720.

Eocene (Torrejon); New Mexico.

Haploconus lineatus Cope.

Cope, E. D. 1882 V, p. 417.

1882 C, p. 466. (*H. xiphodon*.)

1884 K, p. 309.

1884 O, pp. 416, 417, pl. xxve, figs. 1-4 (*H. lineatus*); pp. 416, 420, pl. xxve, figs. 5, 6 (*H. xiphodon*).

1884 AA, p. 804, fig. 13a, 13b (*H. lineatus*)
 fig. 13c (*H. xiphodon*).

1887 I, p. 658.

1888 CC, p. 304. (*H. lineatus*, *H. xiphodon*.)

Lydekker, R. 1886 A, p. 175.

Matthew, W. D. 1897 C, pp. 264, 298.

1899 A, p. 29.

Osborn, H. F. 1893 B, p. 325.

Osborn and Earle 1895 A, p. 59.

Roger, O. 1896 A, p. 165. (*H. lineatus*, *H. xiphodon*.)

Schlosser, M. 1886 B, p. 37, pl. v, fig. 27.

Scott, W. B. 1892 A, p. 429. (*H. xiphodon*.)

Zittel, K. A. 1893 B, p. 216, fig. 154.

Eocene (Torrejon); New Mexico.

It is not improbable that this species will prove to be identical with *H. angustus*.

ANISONCHUS Cope. Type *A. sectorius* Cope.

Cope, E. D. 1881 H, pp. 487, 488.

1882 E, p. 178.

1882 F, p. 96.

1883 AA, p. 408.

1884 E, p. 314.

Cope, E. D. 1884 O, pp. 386, 406.

1884 AA, pp. 795, 808.

1887 I, p. 657.

Matthew, W. D. 1897 C, p. 298.

Nicholson and Lydekker 1889 A, p. 1880.

Osborn and Earle 1886 A, p. 60.
 Pavlow, M. 1887 A.
 Schlosser, M. 1886 B, p. 37.
 Scott, W. B. 1892 A, p. 428.
 Trouessart, E. L. 1898 A, p. 721.
 Zittel, K. A. 1893 B, p. 216.

Anisonchus gillianus Cope.

Cope, E. D. 1882 C, p. 467. (Haploconus.)
 1882 AA, p. 686. (Haploconus.)
 1884 O, pp. 409, 411, pl. xxv, fig. 7 (A. gillianus, A. apiculatus); pl. xv, figs. 10, 11 (H. gillianus).
 1884 AA, p. 803.
 1888 CC, pp. 305, 352. (Hemithlaeus apiculatus, A. gillianus.)
Matthew, W. D. 1897 C, p. 299.
 1899 A, p. 28.
Roger, O. 1896 A, p. 165. (A. gillianus, Hemithlaeus apiculatus.)
Scott, W. B. 1892 A, p. 428.
Trouessart, E. L. 1898 A, p. 721.
 Eocene (Puerco); New Mexico.

Anisonchus sectorius Cope.

Cope, E. D. 1881 H, p. 488.
 1881 H, p. 490. (Mioclaenus mandibularis.)
 1881 U, p. 831. (Mioclaenus sectorius, M. mandibularis.)
 1882 C, p. 467.
 1884 K, p. 309.
 1884 O, pp. 325, 339, pl. lvi, fig. 7 (Mioclaenus mandibularis); pp. 409, 413, pl. xxv, figs. 5, 6, 8 (Anisonchus sectorius).
 1884 AA, p. 803, fig. 12.
 1884 CC, p. 305, 351. (A. sectorius, A. mandibularis.)
Matthew, W. D. 1897 C, pp. 298, 299.
 1899 A, p. 29.
Osborn and Earle 1896 A, p. 61. (A. sectorius, A. mandibularis.)
Pavlow, M. 1887 A, fig. 9.
Roger, O. 1896 A, p. 164. (A. sectorius, A. mandibularis.)
Schlosser, M. 1886 B, p. 37, pl. vi, fig. 26.
 1887 B, p. 221. (Mioclaenus mandibularis.)
Scott, W. B. 1892 A, p. 428.
Trouessart, E. L. 1898 A, p. 721.
 Eocene (Torrejon); New Mexico.

Zetodon Cope. Type *Z. gracilis* Cope.

Cope, E. D. 1883 Q, p. 169.
 1883 EE.
 1884 O, explan. pl. xxix, fig. 9.
 1884 AA, pp. 795, 804.
Matthew, W. D. 1897 C, p. 299.
Osborn, H. F. 1893 B, p. 325.
Pavlow, M. 1887 A, p. 302.
Schlosser, M. 1886 B, p. 37.
Zittel, K. A. 1893 B, p. 218.
 According to Matthew this genus is probably founded on crushed jaws of small specimens of *Anisonchus*.

Zetodon gracilis Cope.

Cope, E. D. 1883 Q, p. 169.
 1883 EE.
 1884 O, explan. pl. xxix, fig. 9.
 1884 AA, pp. 802, 805, fig. 11 d, d'.
 1888 CC, p. 305.
Matthew, W. D. 1897 C, p. 299.
 1899 A, p. 28.
Roger, O. 1896 A, p. 165.
 Eocene (Puerco); New Mexico.

Hemithlaeus Cope. Type *H. kowalevskianus* Cope.

Cope, E. D. 1882 DD, p. 832.
 1884 O, pp. 386, 405.
 1884 AA, pp. 795, 803.
 1884 K, p. 309.
 1887 I, p. 657.
 1888 CC, p. 352.
Nicholson and Lydekker 1889 A, p. 1890.
Osborn and Earle 1896 A, p. 60.
Pavlow, M. 1887 A.
Schlosser, M. 1886 B, p. 37.
Scott, W. B. 1892 A, p. 428.
Zittel, K. A. 1893 B, p. 217.

Hemithlaeus kowalevskianus Cope.

Cope, E. D. 1882 DD, p. 832.
 1882 DD, p. 832. (Anisonchus confusus, in part.)

Cope, E. D. 1884 O, p. 405, pl. xxv, figs. 6, 7 (H. kowalevskianus); p. 409, in part, pl. xxiv, fig. 6a-c (Anisonchus confusus).
 1884 AA, p. 802, fig. 11c.
 1888 CC, pp. 305, 353, fig. 11.
Matthew, W. D. 1897 C, pp. 264, 297, fig. 11.
 1899 A, p. 28.
Osborn and Earle 1896 A, p. 60, fig. 18.
Roger, O. 1896 A, p. 164. (H. kowalevskianus, Anisonchus confusus.)
Scott, W. B. 1892 A, p. 428. (Anisonchus confusus.)
Trouessart, E. L. 1898 A, p. 721. (H. kowalevskianus.)
Zittel, K. A. 1893 B, p. 721, fig. 155. (H. kowalevskianus.)
 Eocene (Puerco); New Mexico.

Conacodon Matth. Type *Haploconus entoconus* Cope.

Matthew, W. D. 1897 C, p. 298.
Trouessart, E. L. 1898 A, p. 721.
Conacodon cophater (Cope).
Cope, E. D. 1884 K, p. 321. (Anisonchus.)
 1888 CC, pp. 304, 349. (Haploconus.)

Matthew, W. D. 1897 C, pp. 264, 298.
 1899 A, p. 28.
Osborn, H. F. 1898 H, p. 182.
Roger, O. 1896 A, p. 164. (Haploconus.)
Trouessart, E. L. 1898 A, p. 721.
 Eocene (Puerco); New Mexico.

Conacodon entoconus (Cope.)

- Cope, E. D. 1882 AA, p. 686. (Haploconus.)
 1882 DD, p. 832. (Anisomachus confusus, in part.)
 1884 O, pp. 416, 421, pl. xxxv, figs. 4, 5 (Haploconus); p. 409, pl. xxivg, fig. 6 (Anisomachus confusus).
 1884 AA, p. 804 (Haploconus); p. 803, fig. 12c (Anisomachus confusus).
 1888 CC, p. 304 (Haploconus); p. 305 (Anisomachus confusus).

Matthew, W. D. 1897 C, pp. 264, 298.

- 1899 A, p. 28.
 Osborn, H. F. 1898 H, p. 182.
 Pavlow, M. 1887 A, fig. 10. (Haploconus.)
 Roger, O. 1896 A, p. 165.
 Schlosser, M. 1886 B, p. 37, pl. vi, fig. 28. (Haploconus.)
 Scott, W. B. 1892 A, p. 428. (Haploconus.)
 Eocene (Puerco); New Mexico.

PANTOLAMBIDIDÆ.

- Cope, E. D. 1883 Z.
 1884 O, p. 601.
 1888 K, p. 162.
 1897 B, p. 336.
 Haeckel, E. 1895 A, pp. 530, 542. (Pantolambdina.)
 Matthew, W. D. 1897 C, p. 294.

- Nicholson and Lydekker 1889 A, p. 1385.
 Osborn, H. F. 1898 H, p. 142.
 Roger, O. 1896 A, p. 155.
 Steinmann and Döderlein 1890 A, p. 762.
 Zittel, K. A. 1893 B, p. 434.

PANTOLAMBDA Cope. Type *P. bathmodon* Cope.

- Cope, E. D. 1882 V, p. 418.
 Ameghino, F. 1896 A, p. 445.
 Cope, E. D. 1882 F, p. 96.
 1883 Z.
 1884 O, p. 601.
 1884 EE, pp. 1111, 1120.
 1885 A, p. 478.
 1888 CC, p. 360.
 1889 C.
 Earle, C. 1892 A, pp. 150, 153.
 1892 B.
 Matthew, W. D. 1897 C, pp. 308, 319.
 Nicholson and Lydekker 1889 A, p. 1385.
 Osborn, H. F. 1888 H.
 1893 E.
 1897 C, p. 1013, fig. 14.
 1898 A, p. 146.
 1898 F, p. 91.
 1898 H, pp. 173, 183, 184.
 1898 M, pp. 585, 587.
 Osborn and Earle 1895 A, p. 43.
 Osborn and Wortman 1892 A, p. 122.
 Schlosser, M. 1888 A, p. 545.
 Scott, W. B. 1892 A, p. 439.
 Zittel, K. A. 1893 B, p. 435.

Pantolambda bathmodon Cope.

- Cope, E. D. 1882 V, p. 418.
 1883 M, p. 557.

- Cope, E. D. 1883 Z, p. 406.
 1884 O, p. 603, pl. xxixb; pl. xxixc, figs. 3-7.
 1884 EE, p. 1111, figs. 3-5.
 1885 F, p. 55.
 1887 S, p. 275, pl. vii, fig. 2.
 1888 F, p. 82, fig. 1.
 1888 CC, pp. 305, 360.
 1889 C, p. 237.

Matthew, W. D. 1897 C, p. 320.

- 1899 A, p. 29.
 Osborn, H. F. 1898 H, pp. 181, 182, 184, figs. 8-13.
 Osborn and Earle 1895 A, p. 43, figs. 14-16.
 Roger, O. 1896 A, p. 155.
 Trouessart, E. L. 1898 A, p. 712.
 Eocene (Torrejon); New Mexico.

Pantolambda cavirostris Cope.

- Cope, E. D. 1883 Q, p. 169.
 1883 EE.
 1884 O, explan. pl. xxixd, fig. 1.
 1884 EE, p. 1113, fig. 6.
 1888 F, p. 83, fig. 2.
 1888 CC, pp. 305, 360.

Matthew, W. D. 1897 C, p. 320.

- 1899 A, p. 29.
 Osborn, H. F. 1898 H, pp. 172, 179, 183, figs. 2, 7, 13.
 Roger, O. 1896 A, p. 155.
 Trouessart, E. L. 1898 A, p. 712.
 Eocene (Torrejon); New Mexico.

Suborder PANTODONTA Cope.

- Cope, E. D. 1873 F, pp. 40, 67.
 1875 C, p. 28.
 1875 M.
 1877 K, p. 182.
 1877 S.
 1882 A.
 1882 E, p. 165.
 1883 M, p. 558.
 1883 Z.
 1884 O, pp. 379, 510, 514, 601.
 1884 EE.

- Cope, E. D. 1885 O.
 1898 B, p. 124.
 Lydekker, R. 1886 A, p. 176. (Coryphodontia.)
 Marsh, O. C. 1884 F, p. 193. (Coryphodontia.)
 1893 C, p. 323. (Coryphodontia.)
 Nicholson and Lydekker 1889 A, p. 1385. (Coryphodontia.)
 Osborn, H. F. 1893 A, p. 450.
 1898 H, pp. 177, 180, 183.
 Science 1885 A, p. 490.
 Scott, W. B. 1886 A, p. 303.

CORYPHODONTIDÆ.

- Marsh, O. C. 1876 D, p. 428.
 Cope, E. D. 1872 EE, p. 279. (Bathmodontidæ.)
 1873 E, pp. 563, 565. (Bathmodontidæ.)
 1873 K. (Bathmodontidæ.)
 1882 E, p. 165.
 1882 M.
 1884 E.
 1884 L, p. 324.
 1884 O, p. 515.
 1884 EE, p. 1192.
 1888 F, p. 80.
 1893 H.
 Earle, C. 1892 B.
 Flower and Lydekker 1889 A, p. 438.
 Haeckel, E. 1895 A, p. 542. (Coryphodontida.)
- Lydekker, R. 1886 A, p. 176.
 Marsh, O. C. 1877 A.
 1877 E.
 1893 C, p. 323.
 1893 H.
 Matthew, W. D. 1899 A, p. 33.
 Nicholson and Lydekker 1889 A, p. 1386.
 Osborn, H. F. 1888 H.
 1898 H, p. 182.
 Roger, O. 1896 A, p. 156.
 Rüttimeyer, L. 1888 A, p. 13.
 Schlosser, M. 1888 A, p. 586.
 Steinmann and Döderlein 1890 A, p. 763.
 Trouessart, E. L. 1898 A, p. 712.
 Zittel, K. A. 1893 B, p. 435.
- CORYPHODON Owen. Type *C. eocænus* Owen.
- Owen, R. 1845 B, p. 607 pl. cxxxv.
 Ameghino, F. 1896 A, p. 445.
 Amer. Jour. Science 1873 A.
 Cope, E. D. 1872 A. (Bathmodon.)
 1872 G, p. 350 (Bathmodon); p. 353 (Loxolophodon).
 1872 J, p. 417 (Bathmodon, type *B. radicans* Cope); p. 420 (Loxolophodon, type *Bathmodon semictinctus*).
 1872 S. (Loxolophodon, in part.)
 1872 T, p. 542. (Metalophodon, type *M. armatus* Cope.)
 1872 AA. (Bathmodon.)
 1872 LL. (Metalophodon.)
 1873 A. (Bathmodon.)
 1873 D, p. 3. (Bathmodon, Metalophodon.)
 1873 E, p. 586 (Bathmodon); pp. 586, 589 (Metalophodon).
 1873 F, p. 67 (Bathmodon); pp. 67, 71 (Metalophodon).
 1873 K. (Bathmodon, Metalophodon.)
 1874 M. (Bathmodon.)
 1875 C, pp. 24, 29. (Bathmodon.)
 1875 M. (Bathmodon.)
 1876 D, p. 64. (Bathmodon.)
 1877 K, p. 187.
 1877 L.
 1877 S.
 1878 T.
 1882 E, p. 145 (Coryphodon); pp. 165, 175 (Metalophodon); pp. 165, 167 (Ectacodon, type *E. cinctus*); pp. 165, 167 (Manteodon, type *M. subquadratus*).
 1882 H, p. 294. (Coryphodon, Bathmodon.)
 1882 M. (Coryphodon, Metalophodon, Manteodon.)
 1883 U.
 1883 Z. (Bathmodon.)
 1884 O, pp. 513, 517, 521 (Coryphodon); pp. 517, 544 (Bathmodon); pp. 517, 564 (Metalophodon); p. 517 (Manteodon); pp. 517, 519 (Ectacodon).
 1884 EE, pp. 1117, 1194 (Coryphodon); p. 1194 (Ectacodon, Manteodon).
 1885 A, p. 478. (Bathmodon.)
 1887 S. (Bathmodon, Metalophodon.)
 1888 F, p. 85. (Coryphodon, Bathmodon.)
- Cope, E. D. 1889 C.
 1893 H.
 Earle, C. 1892 A, pp. 150, 155 (Metalophodon=Coryphodon); p. 165 (Manteodon); p. 166 (Ectacodon).
 1892 B. (Coryphodon, Manteodon.)
 Flower and Lydekker 1891 A, p. 437.
 Gervais, P. 1859 A, p. 127.
 Hébert, Ed. 1856 A.
 Huxley, T. H. 1870 A.
 L. P. B. 1885 A, p. 190.
 Lydekker, R. 1886 A, p. 177.
 Maack, G. A. 1865 A, p. 7.
 Marsh, O. C. 1876 D.
 1877 A.
 1877 H.
 1878 H.
 1884 F, p. 225. (Loxolophodon=Coryphodon.)
 1893 C.
 1893 H, p. 321.
 Nicholson and Lydekker 1889 A, p. 1387. (Coryphodon, Ectacodon, Manteodon.)
 Osborn, H. F. 1890 D, p. 538.
 1897 C, p. 1014.
 1898 F.
 1898 H, pp. 173, 191.
 1898 M, p. 585.
 Osborn and Wortman 1892 A, pp. 118, 120, 121, figures.
 Owen, R. 1846 B, p. 299.
 1848 A, p. 126.
 1858 B, vol. 1, p. 78.
 1860 E, p. 322.
 1878 D, p. 216, pl. xi.
 1886 A.
 Pictet, F. J. 1853 A, p. 304.
 Rüttimeyer, L. 1862 A.
 Scott, W. B. 1892 A, p. 439.
 Steinmann and Döderlein 1890 A, p. 763.
 Trouessart, E. L. 1898 A, p. 712.
 Vasseur, G. 1875 A.
 Wortman, J. L. 1893 B, p. 426.
 Zittel, K. A. 1893 B, p. 438. (Coryphodon, Ectacodon, Manteodon.)

Coryphodon anax Cope.

- Cope, E. D.* 1882 E, p. 168.
 1882 H, p. 294. (*Bathmodon pachypus*.)
 1883 U, p. 68. (*Bathmodon pachypus*.)
 1884 O, pp. 523, 537, pl. xlvib; pl. xliive; pl. xliiv (C. anax); p. 549, pl. xliivd; pl. xliive, figs. 7-13; pl. xliivg (*Bathmodon pachypus*).
 1884 EE, p. 1116, figs. 9, 23 (C. anax); p. 1194, figs. 14, 15 (*Bathmodon pachypus*).
 1893 H, p. 251.
Earle, C. 1892 A, pp. 151, 152, 155, 156, 164, fig. 2, H.
Matthew, W. D. 1899 A, p. 33. (Syn. of *C. lobatus*.)
Osborn, H. F. 1898 H, pp. 191, 197, 198, 204, in part. (Syn. of *C. lobatus*.)
Osborn and Wortman 1892 A, pp. 83, 119, fig. 15.
Roger, O. 1896 A, p. 155.
Trouessart, E. L. 1898 A, p. 714.
Woodward, A. S. 1898 B, p. 293.
Zittel, K. A. 1893 B, p. 438, fig. 359 (*Coryphodon*); p. 438 (*Ectacodon*).
 Eocene (Wasatch); Wyoming.
 See remarks under *C. lobatus*.

Coryphodon armatus (Cope).

- Cope, E. D.* 1872 T, p. 543. (*Metalophodon*.)
 1872 LL. (*Metalophodon*.)
 1873 E, p. 689. (*Metalophodon*.)
 1873 F, p. 71. (*Metalophodon*.)
 1873 K. (*Metalophodon*.)
 1877 K, p. 250. (*Metalophodon*.)
 1884 O, p. 555, pl. xlix, figs. 1-7. (*Metalophodon*.)
 1884 EE, p. 1202. (*Metalophodon*.)
 1893 H, p. 251. (*Metalophodon*.)
Earle, C. 1892 A, p. 151 (*Metalophodon*); p. 159 ("Metalophodon").
Matthew, W. D. 1899 A, p. 33.
Osborn, H. F. 1898 H, pp. 191, 194, 197, 206, figs. 15, 16, 17, 25.
Roger, O. 1896 A, p. 155.
Trouessart, E. L. 1898 A, p. 713.
 Eocene (Wasatch); Wyoming.

Coryphodon cinctus (Cope).

- Cope, E. D.* 1882 E, p. 167. (*Ectacodon*.)
 1882 M. (*Ectacodon*.)
 1884 O, p. 520, pl. xliiv, fig. 6. (*Ectacodon*.)
 1884 EE, p. 1197, fig. 16. (*Ectacodon*.)
 1888 F, p. 84, fig. 3. (*Ectacodon*.)
 1889 C, p. 238, figs. 63, 64. (*Ectacodon*.)
Earle, C. 1892 A, p. 166, fig. 2, G. (*Ectacodon*.)
Matthew, W. D. 1899 A, p. 33.
Osborn, H. F. 1898 H, pp. 191, 197, 198, 202, figs. 15, 16.
Roger, O. 1896 A, p. 155. (*Ectacodon*.)
Trouessart, E. L. 1898 A, p. 714. (*Ectacodon*.)
Zittel, K. A. 1893 B, p. 438, fig. 360.
 Eocene (Wasatch); Wyoming.

Coryphodon curvirostris Cope.

- Cope, E. D.* 1882 E, pp. 170, 172.
 1884 O, pp. 524, 533, pl. xliiv.
 1884 EE, pp. 1116, 1201, figs. 9, 22.
Earle, C. 1892 A, pp. 151, 156, 163.
Matthew, W. D. 1899 A, p. 33.
Osborn, H. F. 1898 H, pp. 191, 197, 199, 207.

- Roger, O.* 1896 A, p. 155.
Trouessart, E. L. 1898 A, p. 713.
 Eocene (Wasatch); Wyoming.

Coryphodon cuspidatus Cope.

- Cope, E. D.* 1875 C, pp. 29, 30. (*Bathmodon*.)
 1877 K, p. 206, pl. xlii, fig. 1.
 1881 D, p. 194.
 1882 E, p. 170.
 1884 O, pp. 523, 525.
 1884 EE, pp. 1116, 1202, fig. 9.
 1893 H, p. 251.
Earle, C. 1892 A, pp. 155, 156, 161 (*C. cuspidatus*); p. 162, "No. 276" (*C. obliquus*).
Matthew, W. D. 1899 A, p. 33. (Syn. of *C. elephantopus*.)
Osborn, H. F. 1898 H, pp. 191, 197, 199, 206.
Roger, O. 1896 A, p. 155.
Trouessart, E. L. 1898 A, p. 713.
 Eocene (Wasatch); New Mexico, Wyoming.

Coryphodon elephantopus Cope.

- Cope, E. D.* 1874 O, p. 10. (*Bathmodon*.)
 1875 C, p. 29. (*Bathmodon*.)
 1875 F, p. 95, pls. v, vi. (*Bathmodon*.)
 1877 K, pp. 206, 217, pl. i, figs. 5, 6; pls. ii, iii, iii; pl. iv, fig. 1.
 1882 E, pp. 170, 171.
 1884 O, pp. 523, 531, pl. xxix.
 1884 EE, p. 1193, figs. 12, 13, 20, 21.
 1887 S, p. 269, figs. 45, 46.
 1889 C, p. 159, figure.
 1891 L, p. 1118.
 1893 H, p. 251.
Earle, C. 1892 A, pp. 151, 155, 160, fig. 2, D.
 1892 B.
King, C. 1878 A, p. 377.
Lydekker, R. 1886 A, p. 177, fig. 27.
Matthew, W. D. 1899 A, p. 33.
Osborn, H. F. 1898 H, pp. 191, 196, 197, 199, figs. 19, 20.
Osborn and Wortman 1892 A, pp. 83, 119.
Roger, O. 1896 A, p. 155.
Scott, W. B. 1886 A, p. 304.
Trouessart, E. L. 1898 A, p. 713.
Zittel, K. A. 1893 B, p. 436, fig. 357.
 Eocene (Wasatch); New Mexico, Wyoming.

Coryphodon hamatus Marsh.

- Marsh, O. C.* 1876 D, p. 426, figs. 1, 2.
Cope, E. D. 1891 L.
Earle, C. 1892 A, pp. 151, 155, 156, 162.
King, C. 1878 A, p. 377.
Lydekker, R. 1886 A, p. 176.
Marsh, O. C. 1877 A, p. 81, pl. iv.
 1884 F, figs. 55, 56, 150, 151.
 1885 B, figs. 92, 93, 103, 132, 133.
 1893 C, p. 325, pl. vi.
 1893 H, pl. xviii, text fig. 1.
Matthew, W. D. 1899 A, p. 33.
Osborn, H. F. 1898 H, pp. 191, 197, 199, 214, in part.
Roger, O. 1896 A, p. 155.
Trouessart, E. L. 1898 A, p. 713.
Woodward, A. S. 1898 B, p. 293, figs. 166-168.
Zittel, K. A. 1893 B, p. 437, figs. 356, 358.
 Eocene (Wasatch); Wyoming.

Coryphodon latidens Cope.

- Cope, E. D.* 1875 C, p. 29. (Bathmodon.)
 1877 K, pp. 206, 214.
 1882 E, p. 170.
 1884 O, p. 523.
 1884 EE, p. 1200, fig. 22.
 1887 Q.
 1888 F, p. 86, fig. 4.
 1889 C, p. 241, fig. 25.
 1893 H, p. 251.
Earle, C. 1892 A, pp. 151, 160. (Syn.? of *C. elephantopus*.)
King, C. 1878 A, p. 377.
Matthew, W. D. 1899 A, p. 33.
Osborn, H. F. 1898 H, pp. 191, 197, 199, 206.
Roger, O. 1896 A, p. 155.
Trouessart, E. L. 1898 A, p. 713. (Syn.? of *C. elephantopus*.)
 Eocene (Wasatch); New Mexico, Wyoming.

Coryphodon latipes Cope.

- Cope, E. D.* 1878 F, pp. 68, 70. (Bathmodon.)
 1878 E, pp. 587, 588. (Bathmodon.)
 1882 E, p. 170.
 1884 O, pp. 523, 526, pls. xxix, figs. 4, 5; pl. xlviii, figs. 7-14.
 1893 H, p. 251.
Earle, C. 1892 A, pp. 150, 151.
Matthew, W. D. 1899 A, p. 33.
Osborn, H. F. 1898 H, pp. 191, 197, 199.
Roger, O. 1896 A, p. 155.
Trouessart, E. L. 1898 A, p. 713.
 Eocene; New Mexico.

Coryphodon lobatus Cope.

- Cope, E. D.* 1877 K, pp. 206, 209, pl. xlvii, figs. 2-10.
 1882 E, p. 170.
 1884 O, p. 523.
Earle, C. 1892 A, pp. 151, 155, 164. (Syn. of *C. anax*.)
Matthew, W. D. 1899 A, p. 33.
Osborn, H. F. 1898 H, pp. 191, 197, 198; p. 204 in part.
Trouessart, E. L. 1898 A, p. 714. (Syn. of *C. anax*.)
 Eocene; New Mexico, Wyoming.
Earle (1892 A, p. 164) makes this species a synonym of *C. anax*. Should it result that the specimens described as *C. anax*, *C. pachypus*, and *C. lobatus* belong to one species, this must bear the name *C. lobatus*, this name having priority of publication. This course has been followed by *Osborn* 1898 H, p. 204.

Coryphodon marginatus Cope.

- Cope, E. D.* 1882 E, pp. 170, 174.
 1884 O, pp. 524, 535, pl. xlvii, fig. 5.
Earle, C. 1892 A, pp. 151, 163. (Syn.? of *C. curvirostris*.)
Matthew, W. D. 1899 A, p. 33.
Osborn, H. F. 1898 H, pp. 191, 197, 198, 210.
Roger, O. 1896 A, p. 155.
Trouessart, E. L. 1898 A, p. 714.
 Eocene (Wasatch); Wyoming.

Coryphodon molestus Cope.

- Cope, E. D.* 1874 D; p. 9. (Bathmodon.)

- Cope, E. D.* 1874 D, p. 8 (Bathmodon *simus*); p. 9 (*B. lomas*).
 1875 C, p. 29. (Bathmodon *molestus*, *simus*, *lomas*.)
 1875 F, p. 95. (Bathmodon *molestus*, *lomas*, *simus*.)
 1877 K, pp. 206, 229, pl. lvi; pl. lvii, figs. 1, 2 (*C. molestus*); pp. 206, 225, pl. lv (*C. simus*).
 1882 E, pp. 170, 171. (*C. molestus*, *C. simus*.)
 1884 O, p. 524 (*C. molestus*); pp. 524, 532 (*C. simus*).
 1884 EE, p. 1197. (*C. molestus*.)
 1893 H, p. 251. (*C. molestus*, *C. simus*.)
Earle, C. 1892 A, pp. 151, 155, 160. (Syn. of *C. elephantopus*.)
Matthew, W. D. 1899 A, p. 33. (Syn. of *C. latidens*.)
Osborn, H. F. 1898 H, pp. 191, 197, 199, 208, fig. 25. (Syn. of *C. armatus*.)
Trouessart, E. L. 1898 A, p. 714. (Syn. of *C. elephantopus*.)
 Eocene (Wasatch); New Mexico.

Coryphodon obliquus Cope.

- Cope, E. D.* 1877 K, pp. 206, 207, pl. xlvii, figs. 1-7.
 1882 E, p. 170.
 1884 O, p. 523.
 1893 H, p. 251.
Earle, C. 1892 A, pp. 151, 155, 156, 162. (Except specimen No. 276.)
Matthew, W. D. 1899 A, p. 33. (Syn. of *C. elephantopus*.)
Osborn, H. F. 1898 H, pp. 191, 196, 197, 199. (Syn. of *C. elephantopus*.)
Osborn and Wortman 1892 A, pp. 83, 119.
Roger, O. 1896 A, p. 155.
Trouessart, E. L. 1898 A, p. 713.
 Eocene (Wasatch); New Mexico.

Coryphodon radians Cope.

- Cope, E. D.* 1872 J, p. 418. (Bathmodon.)
 1872 G, p. 351 (Bathmodon *radians*); p. 352 (*B. semicinctus*).
 1872 AA. (Bathmodon.)
 1873 E, p. 587. (Bathmodon.)
 1873 F, p. 68. (Bathmodon.)
 1875 C, p. 29. (Bathmodon.)
 1877 K, pp. 206, 211. (Coryphodon.)
 1881 D, p. 194. (Coryphodon.)
 1884 O, p. 544, pls. xlv, xlvii; pl. xlviii, figs. 1-6; pl. xlviii, figs. 1-6. (Bathmodon.)
 1888 F, p. 85. (Bathmodon.)
 1889 C, p. 239, fig. 64.
Earle, C. 1892 A, pp. 151, 155, 159, fig. 2, B, C. 1892 B.
King, C. 1878 A, p. 377.
Marsh, O. C. 1876 D, p. 425.
Matthew, W. D. 1899 A, p. 33.
Osborn, H. F. 1898 F, pl. x.
 1898 H, pp. 191, 197, 198, 213.
 1898 M, p. 585, fig. 1.
 1898 Q, p. 12.
Osborn and Wortman 1892 A, pp. 83, 119.
Roger, O. 1896 A, p. 155.
Trouessart, E. L. 1898 A, p. 712.
 Eocene (Wasatch); Wyoming, New Mexico.

Coryphodon repandus Cope.

Cope, E. D. 1882 C, pp. 170, 171.

1884 O, pp. 524, 532, pl. xlii, figs. 1-4.

Earle, C. 1892 A, pp. 151, 155, 156. (Syn. of C. radians.)

Matthew, W. D. 1899 A, p. 33. (Syn. of C. testis.)

Osborn, H. F. 1898 H, pp. 191, 197, 198, 201.

Trouessart, E. L. 1896 A, p. 712. (Syn. of C. radians.)

Eocene (Wasatch); Wyoming.

Coryphodon semicinctus Cope.

Cope, E. D. 1872 J, p. 420. (Bathmodon, Loxolophodon.)

1872 G, p. 352. (Bathmodon.)

1872 S, p. 488. (Loxolophodon.)

1873 E, pp. 567, 587, 588. (Bathmodon.)

1873 F, pp. 68, 70. (Bathmodon.)

1884 O, p. 544. (Syn.? of C. radians.)

Earle, C. 1892 A, p. 151. (Bathmodon.)

Marsh, O. C. 1872, S. (Loxolophodon.)

1873 B, p. 117. (Loxolophodon.)

1873 K, p. 147. (Loxolophodon.)

1876 D, p. 425.

Osborn, H. F. 1898 H, p. 191.

Trouessart, E. L. 1896 A, p. 712. (Syn.? of C. radians.)

Eocene (Wasatch); Wyoming.

Coryphodon singularis Osb.

Osborn, H. F. 1898 H, pp. 191, 197, 199, 214, fig. 215.

Matthew, W. D. 1899 A, p. 36.

Trouessart, E. L. 1899 A, p. 1346.

Eocene (Wind River); Wyoming.

Coryphodon subquadratus (Cope).

Cope, E. D. 1882 E, p. 166. (Manteodon.)

1882 M, p. 73. (Manteodon.)

1884 O, p. 518, pl. xlii, figs. 1-5. (Manteodon.)

1884 EE, p. 1117, fig. 9f. (Manteodon quadratus.)

Earle, C. 1892 A, pp. 151, 155, fig. 2F. (Manteodon.)

Matthew, W. D. 1899 A, p. 33. (Syn. of C. hamatus.)

Osborn, H. F. 1898 H, pp. 191, 197, 214. (Syn.? of C. hamatus.)

Roger, O. 1896 A, p. 156.

Trouessart, E. L. 1896 A, p. 714. (Manteodon.)

Eocene (Wasatch); Wyoming.

Coryphodon testis (Cope).

Cope, E. D. 1882 E, p. 175. (Metalophodon.)

1882 M. (Metalophodon.)

1884 O, p. 567, pl. xlii, fig. 13. (Metalophodon.)

1884 EE, p. 1197, fig. 16. (Metalophodon.)

1888 E, p. 84, fig. 3. (Metalophodon.)

1889 C, p. 238, fig. 63. (Metalophodon.)

Earle, C. 1892 A, pp. 151, 155, 156, 158, fig. 2, E.

1892 B.

Matthew, W. D. 1899 A, p. 33.

Osborn, H. F. 1898 H, p. 174, 175, 189, 190, 197, 202, figs. 4, 6, 14, 15, 16, 17A, 18C, 18a, 21-23, 29.

1900 F, p. 93, fig. 7.

Roger, O. 1896 A, p. 155.

Trouessart, E. L. 1896 A, p. 713.

Eocene (Wasatch); Wyoming.

Coryphodon ventanus Osb.

Osborn, H. F. 1898 H, pp. 191, 197, 210, figs. 16, 17, 26D.

Matthew, W. D. 1899 A, p. 36.

Trouessart, E. L. 1899 A, p. 1346.

Eocene (Wind River); Wyoming, Colorado.

Coryphodon wortmani Osb.

Osborn, H. F. 1898 H, pp. 191, 197, 199, 212, figs. 18B, 27.

Matthew, W. D. 1899 A, p. 36.

Trouessart, E. L. 1899 A, p. 1346.

Eocene (Wind River); Wyoming.

The following citations are given to descriptions of specifically undetermined remains of *Coryphodon*.

Cope, E. D. 1877 K, p. 237, pl. lvii, figs. 2-7 pl. lviii; p. 241, pl. lviii, fig. 9; pls. lix, l. p. 247, pl. lxi; p. 248, pl. lxi; pl. lxiii, figs. 1-4.

Osborn, H. F. 1897 G, p. 256.

BATHYOPSIDÆ.

Osborn, H. F. 1898 H, p. 182.

BATHYOPSIS Cope. Type *B. fissidens* Cope.

Cope, E. D. 1881 D, p. 194.

1881 CC, p. 75.

1884 O, pp. 561, 596.

1885 F, pp. 44, 53.

1885 N.

Nicholson and Lydekker 1889 A, p. 1388.

Osborn, H. F. 1881 A, p. 17.

1898 H, pp. 173, 215, 217, fig. 3.

Scott, W. B. 1886 A, p. 304.

Trouessart, E. L. 1896 A, p. 717. (Syn. of Uintatherium.)

Zittel, K. A. 1893 B, p. 447.

Bathyopsis fissidens Cope.

Cope, E. D. 1881 D, p. 182.

Cope, E. D. 1881 CC, p. 75.

1882 E, p. 176.

1884 O, p. 597, pl. xxix, figs. 1-3; pl. lviii, fig. 1.

1884 EE, pp. 1111, 1115, fig. 7.

1885 F, p. 53, fig. 35.

Marsh, O. C. 1884 F, p. 220, figs. 196, 197. (Uintatherium.)

Matthew, W. D. 1899 A, p. 36.

Roger, O. 1896 A, p. 158.

Trouessart, E. L. 1896 A, p. 718. (Uintatherium.)

Eocene (Wind River); Wyoming.

Suborder DINOCEREA Marsh.

Marsh, O. C. 1872 B.

Unless otherwise indicated, the following authorities refer to this suborder under the amended form of the name *Dinocera*.

Baur, G. 1890 C.

Brandt, J. F. 1878 A, p. 16.

Cope, E. D. 1873 E, p. 564.

1873 F, pp. 40, 42.

1872 J, p. 11.

1873 X.

1875 C, p. 28.

1875 M.

1877 K, p. 182.

1882 A, p. 445.

1884 E.

1884 O, pp. 510, 512, 559, 587.

1884 EE, p. 1111.

1885 F, p. 40.

1885 N.

1885 O.

1886 F.

1888 T.

1894 B, p. 125.

Filhol, H. 1884 A.

Flower, W. H. 1876 B, xiii, p. 308.

Gadow, H. 1898 A, p. 45. (Amblypoda, part.)

Garrod, A. H. 1873 A.

1873 B.

Gaudry, A. 1885 A.

Haeckel E. 1895 A, p. 542.

Hay, O. P. 1899 F, p. 682.

Hill, F. C. 1881 A.

L. P. B. 1885 A.

Lydekker, R. 1886 A, p. 179.

Marsh, O. C. 1873 B.

1873 F.

1873 G.

1873 I.

1873 J.

1873 K.

1873 L.

1873 M.

1873 P.

1874 A, p. 84.

1874 D.

1876 A.

1876 G, p. 60.

1884 F.

1885 B.

Nicholson and Lydekker 1889 A, p. 1387.

Osborn, H. F. 1898 D.

1898 H, pp. 177, 180.

1900 F, p. 89.

Osborn, Scott, and Speir 1878 A, p. 62.

Owen, R. 1876 A, p. 401.

Rütimeyer, L. 1888 A, p. 13.

Schlösser, M. 1888 A, p. 587.

1890 C, p. 250.

Science 1885 A, p. 488.

Scott, W. B. 1892 A, p. 439.

Steinmann and Döderlein 1890 A, p. 764.

Tomes, C. S. 1896 A, p. 440.

Zittel, K. A. 1893 B, p. 439. (Amblypoda, part.)

TINOCERIDÆ.

Marsh, O. C. 1872 M, p. 323.

Cope, E. D. 1873 E, pp. 563, 564. (Eobasilidæ.)

1873 F, p. 41. (Eobasilidæ.)

1875 K. (Eobasilidæ.)

1873 X, p. 292. (Eobasilidæ.)

1888 F, pp. 80, 86. (Uintatheriidæ.)

1889 R, p. 877. (Uintatheriidæ.)

Flower, W. H. 1876 B, xiii, p. 387. (Uintatheriidæ.)

1876 C, p. 114. (Uintatheriidæ.)

Haeckel E. 1895 A, p. 530. (Dinoceratida.)

Lydekker, R. 1886 A, p. 179. (Uintatheriidæ.)

1896 B. (Uintatheriidæ.)

Marsh, O. C. 1873 F, p. 295. (Tinoceratidæ.)

1884 F, p. 191. (Tinoceratidæ.)

Nicholson and Lydekker 1889 A, p. 1387. (Uintatheriidæ.)

Osborn, H. F. 1898 H, p. 182. (Uintatheriidæ.)

Roger, O. 1896 A, p. 156. (Dinoceratidæ.)

Trouessart, E. L. 1898 A, p. 715. (Uintatheriidæ.)

Zittel, K. A. 1893 B, p. 439. (Dinoceratidæ.)

UINTATHERIUM Leidy. Type *U. robustum* Leidy.

Leidy, J. 1872 G, p. 169.

Cope, E. D. 1873 E, pp. 564, 580.

1873 F, p. 60.

1873 K.

1874 M.

1877 K, p. 186.

1882 H, p. 294.

1883 U.

1884 O, pp. 561, 587.

1884 EE, p. 1117.

1885 F, pp. 44, 53.

1885 N, p. 594 (Uintatherium; Ditetrodon, type *Uintatherium segne*.)

1888 F, p. 88, figure.

1889 C.

Flower, W. H. 1876 B, xiii, p. 387.

1876 C, p. 118.

Flower and Lydekker 1891 A, p. 436.

Leidy, J. 1872 A, p. 240. (Uintatherium, Uintamastix.)

1872 G, p. 169. (Uintamastix, type *U. atrox*.)

1872 H, p. 241.

1873 B, pp. 93, 331.

L. P. B. 1885 A.

Marsh, O. C. 1873 F.

1874 D.

1881 G.

1884 F, p. 191.

Nicholson and Lydekker 1889 A, p. 1388.

Osborn, H. F. 1881 A.

1890 D, p. 538.

1895 A, p. 82.

1897 G, pp. 252, 258.

1898 F, p. 91.

1898 H, p. 174.

1898 M, p. 587.

Osborn, Scott, and Speir 1878 A, p. 62.
 Science 1885 A, p. 490.
 Scott, W. B. 1891 B, pp. 375, 385.
 Trouessart, E. L. 1898 A, p. 717.
 Woodward, A. S. 1898 B, p. 299.
 Zittel, K. A. 1898 B, p. 446.

Uintatherium alticeps Scott.

Scott, W. B. 1886 A, p. 307, fig. 4.
 Matthew, W. D. 1899 A, p. 44.
 Roger, O. 1896 A, p. 157. (Tinoceras.)
 Eocene (Bridger); Wyoming.

Uintatherium latifrons Marsh.

Marsh, O. C. 1884 F, p. 220, figs. 11, 125-128.
 1885 B, pp. 249, 262, fig. 48.
 Matthew, W. D. 1899 A, p. 44.
 Roger, O. 1896 A, p. 157.
 Trouessart, E. L. 1898 A, p. 718.
 Eocene (Bridger); Wyoming.

Uintatherium leidianum Osb., Scott, and Speir.

Osborn, Scott, and Speir 1878 A, p. 68, pls. vi-viii.
 Cope, E. D. 1884 O, pp. 593, 599, fig. 26.
 1884 EE, p. 1117, fig. 10.
 1885 F, p. 58, fig. 27.
 Hill, F. C. 1881 A, p. 524.
 Marsh, O. C. 1884 F, p. 221, fig. 198.
 Matthew, W. D. 1899 A, p. 44.
 Osborn, H. F. 1881 A, pp. 18, 19, 23, pl. II.
 Roger, O. 1896 A, p. 158.
 Trouessart, E. L. 1898 A, p. 718.
 Eocene (Bridger); Wyoming.

Uintatherium princeps Osb., Scott, and Speir.

Osborn, Scott, and Speir 1878 A, p. 81, pl. vii, fig. 2.
 Cope, E. D. 1884 O, p. 593.
 Marsh, O. C. 1884 F, p. 223.
 Matthew, W. D. 1899 A, p. 44.
 Eocene (Bridger); Wyoming.

DINOCERAS Marsh. Type *D. mirabilis* Marsh.

Marsh, O. C. 1872 R, p. 343.
 Barbour, E. H. 1890 B, p. 395.
 Cope, E. D. 1873 E, p. 580. (Syn. of Uintatherium.)
 1877 S. (Syn. of Uintatherium.)
 1884 O, p. 587. (Syn. of Uintatherium.)
 1885 F, pp. 44, 53. (Ocotomus, type *D. laticeps*.)
 1885 O.
 Flower, W. H. 1876 B, xiii, p. 387.
 Flower and Lydekker 1891 A, p. 437. (Syn. of Uintatherium.)
 Garrod, A. H. 1873 A, p. 74.
 Gaudry, A. 1878 B, p. 74.
 1889 A.
 L. P. B. 1885 A.
 Leidy, J. 1873 B, pp. 95, 332. (Syn. of Uintatherium.)
 Lydekker, R. 1886 A, p. 182.
 Marsh, O. C. 1873 F.
 1873 G.

Uintatherium robustum Leidy.

Leidy, J. 1872 G, p. 169.
 Cope, E. D. 1873 E, pp. 581, 583.
 1873 F, p. 64.
 1873 K, p. 102.
 1873 X, p. 291.
 1882 H, p. 295.
 1884 O, p. 589, pl. xxxvi, figs. 1, 2.
 1885 F, p. 58.
 King, C. 1878 A, p. 403.
 Leidy, J. 1872 A, p. 240. (U. robustum, Uintamastix atrox.)
 1872 G, p. 169. (Uintamastix atrox, original description.)
 1872 H, p. 241. (U. robustum, Uintamastix atrox.)
 1873 B, pp. 96, 333, pl. xxv, figs. 6-12; pl. xxvi, figs. 1-3; pl. xxvii, figs. 30-34.
 Marsh, O. C. 1872 S.
 1873 B, p. 117.
 1873 K, p. 147.
 1873 L, p. 218.
 1884 F, p. 219, figs. 61, 62, 195.
 1885 B, fig. 98, 99.
 Matthew, W. D. 1899 A, p. 43.
 Osborn, Scott, and Speir 1878 A, p. 82.
 Roger, O. 1896 A, p. 157.
 Trouessart, E. L. 1898 A, p. 717.
 Eocene (Bridger); Wyoming.

Uintatherium segne Marsh.

Marsh, O. C. 1884 F, p. 222, figs. 4, 42, 101, 102, 199, 200.
 Cope, E. D. 1885 N, p. 594. (Ditetrodon.)
 L. P. B. 1885 A, p. 186, fig. 16.
 Marsh, O. C. 1885 B, figs. 78, 79.
 Matthew, W. D. 1899 A, p. 44.
 Roger, O. 1896 A, p. 158.
 Trouessart, E. L. 1898 A, p. 718.
 Eocene (Bridger); Wyoming.

Uintatherium sp. indet. Cope.

Cope, E. D. 1884 O, p. 593, pls. xxxiv, xxxv.
 Eocene (Bridger); Wyoming.

Marsh, O. C. 1874 D.
 1876 A, p. 162.
 1877 H.
 1881 G.
 1884 F, p. 200. (Paroceras, type *D. laticeps*.)
 Nicholson and Lydekker 1889 A, p. 1338.
 Osborn, H. F. 1896 M, p. 587.
 Osborn, Scott, and Speir 1878 A, p. 62.
 Owen, R. 1876 A, p. 401.
 Trouessart, E. L. 1898 A, p. 715.
 Wiedersheim, R. 1881 A, p. 363.
 Woodward, A. S. 1898 B, p. 296.
 Zittel, K. A. 1898 B, p. 446.

Dinoceras agreste Marsh.

Marsh, O. C. 1884 F, pp. 19, 197, fig. 15.
 Matthew, W. D. 1899 A, p. 43.
 Roger, O. 1896 A, p. 156.
 Trouessart, E. L. 1898 A, p. 715.
 Eocene (Bridger); Wyoming.

Dinoceras cuneum Marsh.

- Marsh, O. C. 1884 F, pp. 77, 197, figs. 93, 94, 170, 171.
 1885 B, figs. 118, 119.
 Matthew, W. D. 1899 A, p. 43.
 Roger, O. 1896 A, p. 156.
 Trouessart, E. L. 1898 A, p. 715.
 Eocene (Bridger); Wyoming.

Dinoceras distans Marsh.

- Marsh, O. C. 1884 F, pp. 13, 15, 16, 29, 199, figs. 4, 8, 10, 31.
 L. P. B. 1885 A, p. 181, fig. 8.
 Marsh, O. C. 1885 B, figs. 41, 45, 47, 66.
 Matthew, W. D. 1899 A, p. 43.
 Roger, O. 1896 A, p. 156.
 Eocene (Bridger); Wyoming.

Dinoceras laticeps Marsh.

- Marsh, O. C. 1873 I, p. 301.
 Cope, E. D. 1885 F, p. 53, fig. 34. (Octotomus.)
 King, C. 1878 A, p. 403.
 L. P. B. 1885 A, figs. 18, 28.
 Marsh, O. C. 1876 A, p. 168, pl. v.
 1884 F, p. 200, text figs. 14, 22, 27, 33, 47, 50, 57, 58, 112, 136, 138-140; pls. x-xiv, xliii.
 [Dinoceras (Paroceras).]
 1885 B, figs. 51, 57, 62, 68, 71, 72, 84, 85, 87, 94, 95.
 Matthew, W. D. 1899 A, p. 43.
 Osborn and Speir 1879 A, p. 304. (Uintatherium.)
 Roger, O. 1896 A, p. 156.
 Trouessart, E. L. 1898 A, p. 715.
 Eocene (Wyoming); Wyoming.

Dinoceras lucare Marsh.

- Marsh, O. C. 1873 H, p. 408.
 King, C. 1878 A, p. 403.
 L. P. B. 1885 A, p. 176.
 Leidy, J. 1873 B, p. 334.
 Marsh, O. C. 1884 F, p. 200, pl. ix; text figs. 46, 108-110, 172, 173.
 1885 B, figs. 83, 124, 125.
 Matthew, W. D. 1899 A, p. 43.
 Roger, O. 1896 A, p. 156.
 Scott, W. B. 1886 A, p. 307.
 Trouessart, E. L. 1898 A, p. 715.
 Eocene (Wyoming); Wyoming.

TINOCERAS Marsh. Type *Titanotherium? anceps* Marsh.

- Marsh, O. C. 1872 L, p. 322. (Issued in advance, Aug. 19.)
 Barbour, E. H. 1890 B, p. 395.
 Cope, E. D. 1872 S, p. 487. (Loxolophodon¹, in part.)
 1872 T, p. 542. (Loxolophodon.)
 1872 W. (Lefalophodon, error for Loxolophodon; issued Aug. 19.)
 1872 II. (Loxolophodon.)
 1873 E, pp. 564, 565. (Loxolophodon.)
 1873 F, pp. 40-43. (Loxolophodon.)
 1873 K. (Loxolophodon.)
 1873 X, p. 293. (Loxolophodon.)

Dinoceras mirabile Marsh.

- Marsh, O. C. 1872 R.
 Cope, E. D. 1873 D, p. 1. (Uintatherium.)
 1873 E, pp. 581, 584. (Uintatherium.)
 1873 F, p. 65. (Uintatherium.)
 1873 X, p. 292. (Uintatherium.)
 1874 B, p. 456. (Uintatherium.)
 1884 O, p. 589. (Uintatherium.)
 1885 F, p. 53, figs. 25, 26, 33. (Uintatherium.)
 1889 C, p. 158, figure. (Uintatherium.)
 Emerton, J. H. 1887 A.
 King, C. 1878 A, p. 403.
 L. P. B. 1885 A, with figures.
 Leidy, J. 1872 H, p. 241. (Syn.? of Uintatherium robustum.)
 1873 B, pp. 97, 108, 333. (Syn.? of U. robustum.)
 Lydekker, R. 1886 A, p. 182.
 Marsh, O. C. 1872 S.
 1873 B, p. 118, pls. i, ii.
 1873 K, pls. i, ii.
 1873 L, p. 218.
 1876 A, p. 165, pls. ii-iv.
 1881 G, pl. ii.
 1884 F, pls. i-vii, xx-xlii, xliii-iv; text figs. 3, 7, 13, 26, 34, 35, 39, 40, 43-45, 63, 89, 90, 91, 92, 95, 96, 99, 100, 106-109, 111, 113, 114, 118-123, 129-132, 143-146, 152, 153.
 1885 B, figs. 33-40, 44, 50, 69, 70, 76, 80-82, 100, 116, 117, 120-123, 134-136.
 Matthew, W. D. 1899 A, p. 43. (Uintatherium.)
 Nature 1873 A.
 1873 B.
 Osborn, H. F. 1881 A, p. 24. (Uintatherium.)
 1900 F, p. 98. (Uintatherium.)
 Roger, O. 1896 A, p. 156.
 Trouessart, E. L. 1898 A, p. 715.
 Woodward, A. S. 1898 B, p. 296, fig. 169.
 Zittel, K. A. 1893 B, p. 440, figs. 361, 362, 364-367.
 Eocene (Bridger); Wyoming.

Dinoceras reflexum Marsh.

- Marsh, O. C. 1884 F, p. 201, fig. 174.
 Matthew, W. D. 1899 A, p. 43.
 Roger, O. 1896 A, p. 156.
 Trouessart, E. L. 1898 A, p. 715.
 Eocene (Bridger); Wyoming.

- Cope, E. D. 1877 K, p. 148. (Loxolophodon.)
 1879 Q. (Loxolophodon.)
 1884 O, pp. 561, 569. (Loxolophodon.)
 1885 F, p. 44. (Loxolophodon.)
 1885 N. (Loxolophodon; Tetheopsis, type *Tinoceras stenops*.)
 1886 F. (Tetheopsis.)
 Filhol, H. 1884 A, pl. ix. (Loxolophodon.)
 Flower and Lydekker 1891 A, p. 437. (Syn. of Uintatherium.)
 Hill, F. C. 1881 A. (Loxolophodon.)
 L. P. B. 1885 A.
 Leidy, J. 1873 B, p. 332. (Syn. of Uintatherium.)

¹The generic title *Loxolophodon* was first employed by Professor Cope for *Bathmodon semicinctus*, now regarded as a species of *Coryphodon*. Later Professor Cope used the name for the genus here called *Tinoceras*. In this sense the type was *L. cornutus* (Cope, 1884 O, p. 572).

Lydekker, R. 1886 A, p. 180.

1893 E, p. 142. (*Tinoceras*, "miscalled.")

Marsh, O. C. 1872 G, p. 504.

1873 F, p. 296.

1873 G.

1873 J.

1873 L, p. 216.

1873 M.

1873 P, p. ii. ("*Lefalophodon*.")

1874 D.

1877 A, p. 81.

1881 G.

1884 F, p. 191.

1885 B.

Nicholson and Lydekker 1889 A, p. 1388.

Osborn, H. F. 1881 A, pls. iii, iv. (*Loxolophodon*.)

Osborn, Scott, and Speir 1878 A, p. 62.

Osborn and Speir 1879 A, p. 304, pl. ii. (*Loxolophodon*.)

Science 1885 A, p. 490.

Steinmann and Döderlein 1890 A, p. 765.

Trouessart, E. L. 1898 A, p. 716. (*Loxolophodon*.)

Woodward, A. S. 1898 B, p. 299.

Zittel, K. A. 1893 B, p. 446.

***Tinoceras affine* Marsh.**

Marsh, O. C. 1884 F, p. 204, figs. 16, 178, 179.

Matthew, W. D. 1899 A, p. 43.

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 716. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras anceps* Marsh.**

Marsh, O. C. 1871 D, p. 35. (*Titanotherium*?)

Cope, E. D. 1873 F, p. 41. (*Titanotherium*.)

1873 J. (*Titanotherium*.)

1884 O, p. 572.

King, C. 1878 A, p. 403.

Leidy, J. 1872 B, p. 365. (*Titanotherium*.)

1873 B, p. 334. (*Uintatherium*.)

Marsh, O. C. 1872 G, p. 123 (*Mastodon anceps*); p. 504 (*Tinoceras*).

1872 L.

1873 B, p. 117.

1873 H, p. 408.

1873 K, p. 147.

1873 L, p. 218.

1873 N, p. 51.

1884 F, figs. 97, 98, 175-177.

Matthew, W. D. 1899 A, p. 43.

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 716. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras annectens* Marsh.**

Marsh, O. C. 1884 F, p. 205, figs. 6, 21, 36, 37.

L. P. B. 1885 A, fig. 4.

Marsh, O. C. 1885 B, figs. 43, 56, 73, 74.

Matthew, W. D. 1899 A, p. 43.

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 716. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras cornutum* (Cope).**

Cope, E. D. 1872 W. (*Lefalophodon dicornutus*, error for *Loxolophodon cornutus*.)

Barbour, E. H. 1890 B, p. 395, fig. 8.

Cope, E. D. 1872 S, p. 488. (*Loxolophodon*.)

1872 II. (*Loxolophodon*.)

1872 KK. (*Eobasilus*.)

1873 E, pp. 568, 575, pls. i-iv. (*Loxolophodon*.)

1873 F, pp. 45, 54. (*Loxolophodon*.)

1873 W, p. 151. (*Eobasilus*.)

1873 X, p. 298, pls. i, ii. (*Loxolophodon*.)

1873 Y, p. 49. (*Eobasilus*.)

1873 BB. (*Loxolophodon*.)

1884 O, pp. 573, 574, pls. xxxvii-xliii. (*Loxolophodon*.)

1885 F, p. 45, pl. i, text figs. 24, 29, 31, 32. (*Loxolophodon*.)

1885 O. (*Loxolophodon*.)

1887 S, p. 277, pl. viii. (*Uintatherium*.)

Leidy, J. 1873 B, p. 333. (*Loxolophodon*.)

Lydekker, R. 1886 A, p. 180.

Marsh, O. C. 1873 F, p. 294 (*T. grande*); p. 296 (*T. cornutum*).

1873 G.

1873 J. (*T. grande*.)

1873 L, p. 216 (*T. cornutum*); p. 217 (*T. grande*).

1873 M, p. 306. (*T. cornutum*, *T. grande*.)

1873 P, p. ii.

1884 F, p. 206, figs. 180, 181.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Nature 1873 C. (*Loxolophodon*.)

Osborn, H. F. 1896 C, p. 706, illus. 2. (*Uintatherium*.)

1898 Q, p. 17. (*Uintatherium*.)

1900 F, p. 90, fig. 2. (*Uintatherium*.)

Osborn and Speir 1879 A, p. 304, pl. i. (*Loxolophodon*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 716. (*Loxolophodon*.)

Zittel, K. A. 1893 B, p. 447, fig. 368.

Eocene (Bridger); Wyoming.

***Tinoceras crassifrons* Marsh.**

Marsh, O. C. 1884 F, p. 208, figs. 29, 182.

L. P. B. 1885 A, fig. 12.

Marsh, O. C. 1885 B, fig. 25.

Matthew, W. D. 1899 A, p. 43.

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 716. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras galeatum* Cope.**

Cope, E. D. 1873 D, p. 1. (*Eobasilus*.)

1874 B, p. 456, pl. i. (*Eobasilus*, *Loxolophodon*.)

1874 T. (*Eobasilus*.)

1884 O, pp. 573, 585, pls. xliii, xliiv. (*Loxolophodon*.)

1885 F, p. 46.

Marsh, O. C. 1884 F, p. 209, figs. 183, 184.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Osborn, H. F. 1881 A, pp. 21, 22. (*Loxolophodon*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 716. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras grande* Marsh.**

Marsh, O. C. 1872 M, p. 323.

Cope, E. D. 1873 E, p. 575. (*Loxolophodon cornutus*.)

1873 F, pp. 54, 61.

L. P. B. 1885 A, figs. 31, 32.

Marsh, O. C. 1873 F, p. 294.

1873 G.

1873 L, pp. 217, 218.

1884 F, p. 210, figs. 20, 49, 87, 88, 185.

1885 B, figs. 55, 86, 113-115.

Matthew, W. D. 1899 A, p. 44.

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 716. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras hians* Marsh.**

Marsh, O. C. 1884 F, p. 210, figs. 32, 186.

1885 B, fig. 67.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 717. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras ingens* Marsh.**

Marsh, O. C. 1884 F, p. 211, figs. 9, 17, 23, 25, 28, 51, 115-117, 124, 141, 142.

Barbour, E. H. 1890 B, p. 394, fig. 7.

Hutchison, H. N. 1893 A, p. 150, pl. xiv.

L. P. B. 1885 A, figs. 6, 10, 22.

Lydekker, R. 1886 A, p. 181, fig. 30.

Marsh, O. C. 1885 B, figs. 46, 52, 58, 63, 88, 96, 97, 126, 127, 137.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Osborn, H. F. 1900 F, p. 94. (*Uintatherium*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 717. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras jugum* Marsh.**

Marsh, O. C. 1884 F, p. 212, fig. 187.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 717. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras lacustre* Marsh.**

Marsh, O. C. 1872 R, p. 344. (*Dinoceras*.)

Cope, E. D. 1873 E, pp. 581, 584. (*Uintatherium*.)

1873 F, pp. 61, 66. (*Uintatherium*.)

1884 O, pp. 589, 591, pl. xxxvi, figs. 3-8. (*Uintatherium*.)

1886 F. (*Uintatherium*.)

King, C. 1878 A, p. 403. (*Dinoceras*.)

Marsh, O. C. 1873 L, p. 218. (*Dinoceras*.)

1884 F, p. 212, fig. 188.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 717. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras latum* Marsh.**

Marsh, O. C. 1884 F, p. 213, figs. 189, 190.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 717. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras longiceps* Marsh.**

Marsh, O. C. 1884 F, p. 214, figs. 38, 48, 191, 192.

1885 B, pp. 275, 279, figs. 75, 85.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 717. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras pugnax* Marsh.**

Marsh, O. C. 1884 F, p. 215, figs. 5, 18, 19, 24, 25, 29, 67.

L. P. B. 1885 A, fig. 9.

Marsh, O. C. 1885 B, figs. 42, 53, 54, 59, 64, 89, 104.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 717. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras speiranium* Osb.**

Osborn, H. F. 1881 A, p. 20, pl. i. (*Loxolophodon*.)

Cope, E. D. 1884 O, pp. 573, 599, fig. 28. (*Loxolophodon*.)

1885 F, p. 46, fig. 28.

Marsh, O. C. 1884 F, p. 216, fig. 193.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 717. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras stenops* Marsh.**

Marsh, O. C. 1884 F, p. 217, figs. 53, 54, 194.

Cope, E. D. 1885 N, p. 594. (*Tetheopsalis*.)

1886 F, p. 155.

L. P. B. 1885 A, figs. 20, 21.

Lydekker, R. 1886 A, p. 179, fig. 28.

Marsh, O. C. 1885 B, figs. 90, 91.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 717. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

***Tinoceras vagans* Marsh.**

Marsh, O. C. 1884 F, p. 218, fig. 12.

1885 B, fig. 49.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Roger, O. 1896 A, p. 157.

Trouessart, E. L. 1898 A, p. 717. (*Loxolophodon*.)

Eocene (Bridger); Wyoming.

ELACHOCERAS Scott. Type *E. parvum* Scott.

Scott, W. B. 1886 A, p. 304.

Nicholson and Lydekker 1889 A, pp. 1384, 1388.

Zittel, K. A. 1893 B, p. 447.

***Elachoceras parvum* Scott.**

Scott, W. B. 1886 A, p. 305, figs. 2, 3.

Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)

Roger, O. 1896 A, p. 156.

Trouessart, E. L. 1898 A, p. 715.

Eocene (Bridger); Wyoming.

Eobasileus Cope. Type "*E. cornutus*" = *E. pressicornis*.

- Cope, E. D. 1872 R, p. 485. (Aug. 20, 1872 as *Pa-læont.* Bull. No. 6.)
 1872 S, p. 488. (*Loxolophodon*, in part.)
 1872 W. (*Lefalophodon*, in part.)
 1872 II. (*Loxolophodon*, in part.)
 1873 E, pp. 564, 567, 575, 645.
 1873 F, p. 54.
 1873 J.
 1873 K.
 1873 W.
 1873 Z.
 1884 O, p. 561.
 1885 F, pp. 44, 45.
 Leidy, J. 1873 B, p. 332. (Syn. of *Uintatherium*.)
 Marsh, O. C. 1873 B, pp. 118, 122.
 1873 F.
 1873 K, p. 151.
 Nicholson and Lydekker 1889 A, p. 1388.
 Science 1885 A, p. 490.
 Trouessart, E. L. 1896 A, p. 718.
 Zittel, K. A. 1893 B, pp. 446, 447.
 A genus of doubtful validity; probably equivalent to *Tinoceras*.
- Eobasileus furcatus** Cope.
 Cope, E. D. 1872 W. (*Lefalophodon bifurcatus*, error for *Loxolophodon furcatus*.)
 1872 S, p. 488. (*Loxolophodon*.)
 1872 II. (*Loxolophodon*.)
 1872 KK, p. 774.
 1873 E, p. 580.
 1873 F, p. 59.
 1873 W, p. 159. (*Uintatherium*.)

- Cope, E. D. 1873 X, p. 291.
 1884 O, p. 565 (*Eobasileus*); pls. xxxii xxxiii (*Uintatherium*).
 1885 F, p. 45.
 Marsh, O. C. 1873 B, p. 118.
 1873 F, p. 295.
 1873 K, p. 151.
 1873 L, p. 217.
 1884 F, p. 223. (*Tinoceras*.)
 Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)
 Trouessart, E. L. 1896 A, p. 718.
 Eocene (Bridger); Wyoming.

Eobasileus pressicornis Cope.

- Cope, E. D. 1872 W. (*Lefalophodon excremicornis*, error for *Loxolophodon pressicornis*.)
 1872 R, p. 485. (*E. cornutus*, not *Loxolophodon cornutus* of Cope, E. D. 1872 W.)
 1872 S, p. 488. (*Loxolophodon*.)
 1872 II, p. 560. (*Loxolophodon*.)
 1872 KK, p. 774.
 1873 E, p. 575.
 1873 F, p. 54.
 1873 W, p. 159. (*Uintatherium*.)
 1884 O, p. 562, pl. xxx, figs. 1-5; pl. xxxi.
 Marsh, O. C. 1873 F, p. 295.
 1873 L, p. 217.
 1884 F, p. 223. (*Tinoceras*.)
 Matthew, W. D. 1899 A, p. 44. (*Uintatherium*.)
 Roger, O. 1896 A, p. 158.
 Trouessart, E. L. 1896 A, p. 718.
 Eocene (Bridger); Wyoming.

Order PROBOSCIDEA.

- Baur, G. 1889 K.
 Cope, E. D. 1873 E, pp. 561-563.
 1873 F, p. 38.
 73 J, p. 11.
 1874 M.
 1880 B, p. 457.
 1882 A, p. 444.
 1882 Y.
 1883 D.
 1884 O, pp. 167, 378, 379.
 1887 S, p. 342.
 1888 D, p. 257.
 1889 C, 142 et seq.
 1889 J.
 1889 R, pp. 875, 877.
 Cope and Wortman 1884 A, p. 13.
 Flower, W. H. 1876 B, xliii, p. 350.
 1883 D, p. 423.
 1885 A.
 Flower and Lydekker 1891 A, p. 418.
 Gadow, H. 1896 A, p. 45.
 Gaudry, A. 1878 B, p. 169.
 Gill, T. 1872 A, p. 301.
 1872 B, pp. 13, 48, 89.
 Gill and Coues 1877 A, p. 1037.
 Grant, E. 1842 A, p. 769.
 Gray, J. E. 1869 A, p. 358.
 Haeckel, E. 1895 A, p. 538.
 Hay, O. P. 1899 F, p. 682.
 Lydekker, R. 1884 B, p. 16.
 1886 B.

- Lydekker, R. 1896 B.
 Marsh, O. C. 1877 E.
 1884 F, p. 172 et seq.
 Nicholson and Lydekker 1889 A, p. 1390.
 Osborn, H. F. 1890 D, p. 539.
 1893 A.
 1898 D.
 1896 A, p. 146.
 1900 C, p. 567.
 1900 F, p. 89.
 Owen, R. 1845 B, p. 613 ("Proboscidiens").
 1848 A, p. 132.
 1866 B, p. 437.
 1868 A, p. 359.
 Paull, S. 1900 B, p. 235.
 Roger, O. 1896 A, p. 158.
 Ryder, J. A. 1878 A.
 Schlosser, M. 1890 A.
 1890 C.
 1890 D.
 Scott, W. B. 1892 A, p. 439.
 Slade, D. D. 1893 A.
 Steinmann and Döderlein 1890 A, p. 754.
 Thomas, O. 1890 A.
 Tomes, C. S. 1896 A, p. 424.
 Weithofer, K. A. 1888 B.
 1890 A.
 1893 A.
 Woodward, A. S. 1896 B, p. 299.
 Wortman, J. L. 1885 A, p. 297.
 1886 A, p. 488.
 Zittel, K. A. 1893 B, pp. 206, 447, 743.

ELEPHANTIDÆ.

- Adams, A. L. 1877 B.
 Blainville, H. M. D. 1864 A, iii, 8, pls. 1-xvii.
 Brandt, J. F. 1869, p. 28.
 Cope, E. D. 1873 E, p. 563.
 1875 C, p. 25.
 1889 J, p. 182.
 1893 A.
 Cuvier, G. 1799 A. ("Elephans.")
 1806 A. ("Les elephans.")
 1834 A, i, p. 463; ii, p. 1-373, pls. 1-29.
 Edwards, A. M. 1865 A.
 Falconer, H. 1868 A.
 Flower, W. H. 1876 B, xiii, p. 351.
 Flower and Lydekker 1891 A, p. 423.
 Gadow, H. 1898 A, p. 46.
 Gill and Coes 1877 A, p. 1037.
 Gray, J. E. 1869 A, p. 358.
 Lortet and Chantre 1879 A.

- Lydekker, R. 1880 A, p. 197.
 1884 B, p. 17.
 1886 B, p. 13.
 Naumann, E. 1879 A.
 Nicholson and Lydekker 1889 A, p. 1394.
 Roger, O. 1889 A.
 1896 A, p. 158.
 Scott, W. B. 1891 C, p. 66.
 Sirodot, S. 1876 A.
 1876 B.
 Steinmann and Döderlein 1890 A, p. 757.
 Thomas, O. 1890 A.
 Trouessart, E. L. 1898 A, p. 700.
 Welthofer, K. A. 1890 A.
 1893 A.
 Weyhe, — 1875 A, p. 121.
 Zittel, K. A. 1893 B, p. 458.

MAMMUT Blumenbach. Type *M. ohoticum* Blumenbach = *M. americanus* Kerr.

Blumenbach, J. F., 1799, *Naturgeschichte*, ed. vi, p. 608.

Unless otherwise indicated, the following writers refer to this genus under the name *Mastodon*.

- Ameghino, F. 1889 A, p. 633.
 Blumenbach, J. F. 1803, *Naturgeschichte*, ed. vii, p. 723. (Mammut.)
 Brandt, J. F. 1869 A, p. 31.
 Bronn, H. G. 1838 A, p. 1232 (Tetracaulodon): p. 1283 (Mastodon).
 Burmeister, H. 1867 A, p. 287.
 Cope, E. D. 1877 C, p. 584. (*Cænobasilæus*, type *C. tremontigerus*.)
 1884 G, p. 2. (Mastodon, Dibelodon, Tetrabelodon.)
 1889 J, pp. 198, 204. (Dibelodon, Tetrabelodon.)
 Cope and Wortman 1884 A, p. 81.
 Cuvier, G. 1806 A. ("Mastodonte.")
 1806 B, pp. 270-312.
 1817, *Règne Anim.*, p. 238.
 1834 A, ii, pp. 247-273.
 Falconer, H. 1857 B (Mastodon): p. 316 (Trilophodon, Tetrilophodon).
 1865 A.
 Falconer and Cautley 1846 A.
 Flower, W. H. 1876 B, xiii, p. 351.
 1883 D, p. 425.
 Flower and Lydekker 1891 A, p. 431.
 Gaudry, A. 1878 B, p. 170.
 1891 B.
 Gervais, P. 1855 A.
 Godman, J. D. 1825 A.
 1830 A. (Tetracaulodon.)
 Grant, E. 1842 A, p. 771. (Mastodon, Tetracaulodon.)
 Harlan, R. 1825 A, p. 209.
 1834 B, p. 51. (Tetracaulodon.)
 1835 B, p. 257. (Tetracaulodon.)
 1842 B, p. 142 (Tetracaulodon); p. 143 (Hipopotamus).
 1843 A, p. 210. (Tetracaulodon.)
 Hays, I. 1834 A.
 1842 A. (Tetracaulodon.)

Hays, I. 1842 B, p. 275. (Missourium, Tetracaulodon, Mastodon.)

- 1843 A.
 1844 A. (Tetracaulodon.)
 Horner, W. E. 1841 A.
 1841 B. (Mastodon, Tetracaulodon.)
 1841 C. (Tetracaulodon.)
 Kaup, J. J. 1832 A. (Tetracaulodon.)
 1843 A. (Tetracaulodon.)
 Koch, A. C. 1839 B. (Missourian.)
 1842 A, p. 714. (Tetracaulodon.)
 1843 A. (Leviathan.)
 1845 A. (Mastodon.)
 Leidy, J. 1869 A, pp. 240, 392.
 1871 C, p. 358.
 1873 G, p. 416.
 Lortet and Chantre 1879 A.
 Lydekker, R. 1880 A, p. 202. (Mastodon, Trilophodon.)
 1886 B, p. 14.
 Marsh, O. C. 1877 E.
 Meyer, H. 1867 B.
 Naumy, A. 1842 A, p. 775. (Mastodon, Missourium, Tetracaulodon.)
 Naumann, E. 1879 A.
 Nicholson and Lydekker 1889 A, p. 1395.
 Owen, R. 1842 E, p. 689.
 1844 A, p. 219.
 1845 B, p. 618.
 Pavlow, M. 1894 A.
 Pictet, F. J. 1853 A, p. 236.
 Plummer, J. T. 1843 A.
 Pohlig, H. 1892 B, p. 313.
 Quenstedt, F. A. 1852 A, p. 58.
 Richardson, J. 1854 B.
 Scott, W. B. 1887 A.
 1891 D, p. 90.
 1892 A, p. 439.
 Steinmann and Döderlein 1890 A, p. 758.
 Thomas, O. 1890 A.
 Trouessart, E. L. 1898 A, p. 700.
 Warren, J. C. 1846 A.
 1852 C.
 Woodward, A. S. 1896 B, p. 308.
 Woodward, H. 1891 A.
 Zittel, K. A. 1893 B, p. 459.

Mammut americanum (Kerr).

- Kerr, R. 1792, Anim. Kingdom, p. 116. (*Elephas americanus*.)
- Unless otherwise indicated, the following writers call this species *Mastodon americanus*.
- Agassiz, L. 1862 B. (*M. giganteus*.)
- Allen, H. 1886 B.
- Amer. Geologist 1891 C, p. 335. ("Mastodon.")
- Amer. Jour. Science 1828 A, p. 187. ("Mastodon.")
- 1835 A. ("Mastodon.")
- 1846 A, p. 268. (Mastodon.)
- 1846 B, p. 131, fig. 1. (*M. giganteus*.)
- 1852 A. (*M. giganteus*.)
- 1853 A. (*M. giganteus*.)
- 1875 A, p. 222. (*M. ohioticus*.)
- 1882 A, p. 294. ("Mastodon.")
- Ami, H. M. 1838 A, p. 80.
- Andrews, E. 1875 A, p. 32. ("Mastodon.")
- Annan, R. 1793 A. (No name.)
- Anonymous 1834 A. ("Mastodon.")
- 1837 A. ("Mastodon.")
- Atwater, C. 1820 A, p. 245, pl. ii, figs. A, B. ("Mastodon.")
- Barton, B. S. 1805 A. ("Mammoth.")
- Bell, R. 1898 A. (*M. giganteus*.)
- Bensted, W. H. 1861 A. ("Missourium.")
- Blainville, H. M. D. 1864 A, iii, S, 232, pls. xvi, xvii (*M. ohioticus*); iv, Z, p. 44 (*Tapirus mastodontoides*.)
- Blake, W. P. 1855 A. (*M. giganteus*.)
- 1868 A, p. 381. ("Mastodon.")
- Blatchley, W. S. 1898 A, p. 90.
- Brevoort, J. C. 1859 A. ("Mastodon.")
- Britton, N. L. 1885 A. ("Mastodon.")
- Bronn, H. G. 1838 A, p. 1235, pl. xlv, fig. 6. (*M. giganteus*.)
- Camper, P. 1788 A, pls. viii, ix. ("Mamonteum," not as generic name.)
- Carpenter, W. M. 1838 A, p. 202. ("Mastodon.")
- 1839 A. ("Mastodon.")
- 1846 A, pp. 244, 249 ("Mastodon"); p. 250 ("Dinotherium").
- Chaloner, A. D. 1843 A. ("Mastodon.")
- Chapman, E. J. 1868 A. (*M. ohioticus*?)
- Cheney, T. A. 1872 A. (*M. giganteus*.)
- Christie, W. J. 1856 A. ("Mastodon.")
- Claypole, E. W. 1895 B. ("Mastodon.")
- Collett, J. 1882 A. (*M. giganteus*.)
- Cooper, W. 1831 A, p. 160. (*M. maximus*.)
- 1843 A, p. 33. (*M. giganteum*.)
- Cooper, Smith, and De Kay 1831 A, p. 370. ("Mastodon.")
- Cope, E. D. 1868 L, p. 251. (*Tetracaulodon ohioticus*, *Trilophodon ohioticus*.)
- 1869 N, p. 740. (*Trilophodon ohioticus*.)
- 1871 F. (*Trilophodon ohioticus*.)
- 1871 I, p. 95.
- 1874 J, p. 221. (*M. ohioticus*.)
- 1875 F, p. 66. (*M. ohioticus*.)
- 1875 V, p. 51. (*Trilophodon ohioticus*.)
- 1877 C, p. 584. (*Cænobasilæus tremonti-gerus*.)
- 1882 O. (*M. giganteus*.)
- 1884 G, pp. 5, 8.
- 1884 V, p. 525. (*M. ohioticus*.)
- 1885 S.
- 1887 S, p. 56. (*Trilophodon ohioticus*.)
- Cope, E. D. 1889 F, p. 164. (Mastodon.)
- 1889 J, p. 206, text fig. 3, pl. xv, fig. 2.
- 1899 A, p. 252. (Mastodon.)
- Cope and Wortman 1884 A, p. 33, pl. iii, figs. 1, 2, pl. vi, fig. 1.
- Couper, J. H. 1842 A, p. 216. ("Hippopotamus," "Mastodon.")
- 1846 in Hodson, W. B. 1846 A, p. 31. (*M. giganteus*.)
- Croom, H. B. 1835 A, p. 170. (*M. giganteus*.)
- Cuvier, G. 1799 A, p. 19. (*Animal de l'Ohio*.)
- 1806 A, p. 55. ("Mastodonte.")
- 1806 B, pp. 270, 312, pls. xlix-lvi. ("Mastodonte.")
- 1806 C, pls. lxxvi-lxxix. ("Mastodonte.")
- 1834 A, ii, pp. 247-273, x, p. 477 (*M. maximus*); p. 478, pls. xix-xxv (*M. americanus*.)
- Daily State Journal 1870 A. ("Mastodon.")
- Dana, J. D. 1875 A. (*M. giganteus*.)
- 1879 A, p. 233.
- Dawkins, W. B. 1870 A, p. 232. ("Mastodon.")
- Dawson, J. W. 1868 A, figs. 23, 24. ("Mastodon.")
- De Kay, J. E. 1824 A. (*M. giganteus*.)
- 1842 C, p. 102. (*M. giganteus*.)
- Depéret, C. 1887 A, p. 175. (*M. ohioticus*.)
- Desor, E. 1849 A, p. 207. ("Mastodon.")
- 1852 A, p. 58. ("Mastodon.")
- Dickeson, M. W. 1846 A, p. 106. (*M. giganteus*.)
- Domeler, W. 1803 A. ("Mammoth.")
- Falconer, H. 1857 B. [*M. (Trilophodon) ohioticus*.]
- 1868 A, i, p. 49, pl. vii, fig. 2. (*M. ohioticus*.)
- Falconer and Cautley 1846 A, p. 16, pl. iii, fig. 9; pl. xi, fig. 16; pl. xlv, fig. 4. (*M. ohioticus*.)
- Fischer, — 1808, Programme d'Invitation, p. 12. (*Harpagotherium canadense*.)
- Foster, J. W. 1838 A, p. 79. (*M. maximus*.)
- 1839 A, fig. 1. (*M. giganteum*.)
- 1849 A. (*M. giganteum*.)
- 1857 A. (*M. giganteum*.)
- Gaudry, A. 1891 B, p. 4, pl. ii, fig. 7.
- Gazley, S. 1830 A. ("Mastodon.")
- Giebel, C. G. 1847 A, p. 197 (*Tapirus mastodontoides*); p. 202 (*M. giganteum*.)
- Gilbert, G. K. 1871 A, p. 220. ("Mastodon.")
- Goddard, — 1841 A. ("Mastodon.")
- Godman, J. D. 1825 A, pl. ii. (*M. giganteus*.)
- 1828 A, p. 206, pls. opp. pp. 205, 225, 231, 233, 236. (*M. giganteum*.)
- 1830 A, pls. xvii, xviii. (*Tetracaulodon mastodontoides*.)
- Gray, A. 1846 A. ("Mastodon.")
- Hall, J. 1843 A, p. 363, plate, fig. No. 74; text fig. 173. (*M. maximus*.)
- 1871 A, pls. iii-vii. (*M. giganteus*.)
- Hallowell, E. 1847 A. ("Mastodon.")
- Harlan, R. 1825 A, p. 211 (*M. giganteus*); p. 221 (*Tapirus mastodontoides*, *M. tapiroides*.)
- 1834 B, p. 47 (*M. giganteum*, *M. maximus*); pp. 57, 59 (*Tapirus mastodontoides*, *M. tapiroides*.)
- 1835 B, p. 264 (*M. giganteum*); p. 262 (*M. tapiroides*); p. 265 (*Tapirus mastodontoides*.)
- 1842 E. (*M. giganteus*.)
- 1843 A, p. 210. ("Mastodon")
- Hartt, C. F. 1871 A. ("Mastodon")
- Hayden, F. V. 1866 A. ("Mastodon.")

- Hayes, S. 1895-A. ("Mastodon.")
- Hays, I. 1834 A. (*M. giganteum*): p. 334, pl. xxiv (*M. cuvieri*): p. 334, pl. xxv (*M. jeffersonii*): p. 334, pl. xxviii (*M. collinsii*): p. 334, pl. xxix (*Tetracaulodon godmani*).
1841 A, pp. 102, 106. ("Tetracaulodon," *M. giganteum*.)
1842 A, p. 183. (*Tetracaulodon*, *M. giganteum*.)
1842 B, p. 265. (*M. giganteum*, *Tetracaulodon godmani*, *T. tapiroides*, *T. kochii*.)
1843 A, p. 46 ("Tetracaulodon"); p. 48 (*M. giganteum*.)
1846 A, p. 269. ("Tetracaulodon.")
- Hazeltine, J. 1835 A. ("Mastodon.")
- Hicks, L. E. 1873 A, p. 79. ("Mastodon.")
- Hitchcock, E. 1872 A. ("Mastodon.")
1885 A. ("Mastodon.")
- Hodson, W. B. 1846 A, p. 12. (*M. giganteus*.)
- Holmes, F. S. 1849 A, p. 197. ("Dinotherium.")
1850 B, p. 203. ("Dinotherium," "Mastodon.")
1858 B, p. 442. ("Mastodon.")
- Holmes, N. 1857 A. (*M. giganteus*.)
- Horner, W. E. 1840 A, p. 281 (*M. giganteum*): p. 282 (*Missourium kochii*).
1841 A. ("Mastodon.")
1841 B, p. 306. ("Tetracaulodon.")
1842 A, p. 53. ("Mastodon.")
- Horner and Hays 1842 A, pls. 1-iv. ("Mastodon.")
- Hoy, P. R. 1871 A, p. 147. (*M. giganteus*.)
- Hunt, J. G. 1874 A. ("Mastodon.")
- Hunter, W. 1769 A, pl. iv, figs. 1, 3, 5. ("Pseud-elephant," "animal incognitum.")
- Hutchinson, H. N. 1893 A, p. 217, pl. xxi.
- Jackson, J. B. S. 1845 A. (*M. giganteus*.)
- Kaup, J. J. 1843 A, p. 172 (*M. cuvieri*, *M. jeffersonii*, *M. giganteus*): p. 173 (*Tetracaulodon bucklandi*, *T. godmani*): p. 174 (*M. collinsii*).
- Kindle, E. M. 1898 A, p. 485.
- Klappart, J. H. 1875 B. ("Mastodon.")
- Koch, A. C. 1839 A. ("Mammoth.")
1839 B. ("Mastodon," "Missourian.")
1840 A. (*Missourium kochii*.)
1841, Description of the Missourian. (*Leviathan missouri*, *Tetracaulodon tapiroides*, *T. osagei*, *T. kochii*.)
1842 A, p. 715. (*Tetracaulodon godmani*, *T. kochii*, *T. tapiroides*.)
1843 A. (*Leviathan missouriensis*, *Missourium theristocaulodon*.)
1845 A. (*Mastodon rugatum*, *Tetracaulodon godmani*, *T. haydi*, *T. kochii*, *Missourium theristocaulodon*.)
1851 A. (*M. giganteum*.)
1857 A. (*M. giganteum*.)
1858 A. (*M. giganteum*.)
- Lapham, I. A. 1855 A. (*M. giganteus*.)
- Lathrop, S. P. 1851 A. ("Mastodon.")
- Leidy, J. 1849 A, p. 182.
1858 D. ("Mastodon.")
1860 B, p. 106, pl. xix, figs. 1-3. (*M. ohioticus*.)
1868 A, p. 175.
1869 A, pp. 240, 392.
1870 B, p. 96.
1871 C, p. 358.
- Leidy, J. 1871 D.
1871 F, p. 113.
1873 B, pp. 237, 255, 330, pl. xxii, figs. 5, 6; pl. xxviii, fig. 9.
1877 A, p. 218.
1884 A.
1884 B.
1889 B, p. 9.
- Leidy and Lucas 1896 A, p. 16.
- Lesley, J. P. 1899 A, p. 380.
- Lockwood, S. 1888 A.
- Lortet and Chantre 1879 A, p. 291.
- Lydekker, R. 1886 B, p. 15, fig. 3.
- Lyell, C. 1843 B. (*M. giganteum*.)
- McCallie, S. W. 1892 A. ("Mastodon.")
- Marsh, O. C. 1867 A. (*M. ohioticus*.)
1875 F. ("Mastodon.")
1877 E. ("Mastodon.")
1884 F, fig. 74.
1885 B, fig. 107.
1892 I, p. 350, pl. viii.
1893 E, pl. viii.
1897 C, pl. xxxi.
- Maxwell, J. B. 1845 A. ("Mastodon.")
- Miller, G. S. 1899 B, p. 373.
- Mitchell, S. L. 1818 A, pl. vi, figs. 1-4; pl. viii, figs. 1-3. ("Mastodon.")
- Moore, J. 1897 A, p. 277, plate.
- Nasmyth, A. 1842 A, p. 776 (*M. giganteum*): p. 777 (*Tetracaulodon godmani*, *T. kochii*, *T. tapiroides*).
- Newberry, J. S. 1870 A, p. 77. (*M. giganteum*.)
- Nicholson and Lydekker 1889 A, p. 1397.
- Osborn, H. F. 1898 Q, p. 19.
1899 G, p. 539. (*Mastodon*.)
- Owen, R. 1842 E, p. 689. (*M. giganteum*.)
1845 B, p. 616, pl. cxliv, figs. 1-11, 13, 14. (*M. giganteus*.)
1846 A, p. 94. (*M. giganteus*.)
1846 B, pp. 273, 290, fig. 102. (*M. giganteus*.)
1847 D. (*M. giganteus*.)
1860 E, p. 353. (*M. ohioticus*.)
1866 B, p. 441, fig. 297. (*M. giganteus*.)
- Packard, A. S. 1868 A, p. 33. (*M. giganteus*.)
- Panton, J. H. 1891 A. (*M. giganteus*.)
1892 A. (*M. giganteus*.)
- Pavlov M. 1894 A, pl. 1; pl. ii, fig. 2. (*M. ohioticus*.)
- Peale, R. 1802 A. ("Mammoth.")
1802 B, pl. v, fig. 1. ("Mammoth.")
1803 C. ("Mammoth.")
- Pictet, F. J. 1853 A, p. 302. (*Tapirus mastodon-toides*.)
- Prime, A. J. 1845 A, pl. iv. ("Mastodon.")
- Putnam, F. W. 1884 A, p. 112. ("Mastodon.")
1885 A. ("Mastodon.")
- Quart. Jour. Geol. Soc., 1845, 1, p. 566. (*M. giganteus*.)
- Quenstedt, F. A. 1852 A, p. 53, pl. iv, figs. 7, 8 (*M. giganteum*.)
1855 A, p. 73, pl. v, figs. 7, 8. (*M. giganteum*.)
- Rice, F. P. 1886 A.
- Richardson, J. 1854 A, p. 101 (*Elephas rupertianus*); p. 141 (*M. rupertianus*.)
1854 B. (*M. giganteus*.)
1855 A, p. 131. (*M. giganteus*.)
- Roger, O. 1896 A, p. 160.

- Safely, R. 1866 A, p. 426. ("Mastodon.")
 Savage, J. 1878 A, p. 1011 (Mastodon ohioensis.)
 Shaler, N. S. 1871 A, p. 162. (M. ohioensis.)
 Shurtleff, N. B. 1846 A. (M. giganteus.)
 Silliman, B., sr. 1835 A, p. 165. ("Mastodon.")
 Silliman, B., jr. 1868 A. ("Mastodon;" may be some other species.)
 Smith, J. A. 1846 A, p. 19. ("Mastodon.")
 Stejneger, H. & Döderlein 1890 A, p. 759.
 Stewart, T. P. 1828 A.
 Todd, A. 1876 A. (M. augustidensis.)
 Troost, G. 1835 A, pp. 139, 236. ("Mastodon.")
 Trouessart, E. L. 1896 A, p. 704.
 Turner, G. 1799 A. ("Mastodon," "Incognitum.")
 T. R. J. 1889 A. ("Mastodon.")
 Van Rensselaer, J. 1826 A. (M. giganteum.)
 1827 A. ("Mastodon.")
 1828 A. (M. giganteum.)
 Walles, B. L. C. 1864 A, pp. 284, 286. (M. giganteus.)
 Warren, J. C. 1846 A. (M. giganteus.)
 1852 B. (M. giganteus.)
 1852 C, pls. i-xxvi+i. (M. giganteus.)
 1853 A, figs. 1-3. (M. giganteus.)
 1855 A. (M. giganteus.)
 1856 C. (M. giganteus.)
 1856 A. (M. giganteus.)
 Wheatley, C. M. 1871 A, p. 236.
 Wheeler, W. 1878 A, p. 11 ("Mastodon.")
 Whipple, S. H. 1844 A. ("Mastodon.")
 Whitfield, R. P. 1891 A. ("Mastodon.")
 Whitney, J. D. 1879 A, p. 252.
 Whittlesey, C. 1848 A, p. 215. ("Mastodon.")
 Wilder, B. G. 1871 A, p. 68. ("Mastodon.")
 Williston, S. W. 1897 I, p. 301.
 1898 I, p. 91.
 Winchell, A. 1864 A. ("Mastodon.")
 ? Winslow, C. 1857 A. (M. giganteus.)
 1868 A, p. 407. ("Mastodon.")
 Wistar, C. 1818 A. ("Mastodon.")
 Wulzelenius, A. 1858 A. (M. giganteus.)
 Woolworth, S. 1847 A, p. 31, fig. 2. ("Mastodon.")
 Worthen, A. H. 1871 A. ("Mastodon.")
 Wyman, J. 1850 A, p. 57. (M. giganteus.)
 1853 B. ("Mastodon.")
 1862 A, p. 422. ("Mastodon.")
 Yates, L. G. 1874 B.
 Zittel, K. A. 1893 B, p. 464.
 Pleistocene: Virginia, Ohio, Michigan, New Jersey, Connecticut, Massachusetts, Maryland, South Carolina, Texas, Kansas, Colorado, California, Tennessee, Illinois, Indiana, Pennsylvania, New York, Mississippi, Manitoba, Cape Breton Island, Ontario, etc.

Mammut brevidens (Cope).

- Cope, E. D. 1889 J, pp. 199, 200, 201, fig. 5. (Tetrabelodon.)
 1884 V, p. 525. (Mastodon proavus.)
 1886 B, p. 359. (Mastodon proavus.)
 1886 H. (Mastodon proavus.)
 Matthew, W. D. 1899 A, p. 68. (Tetrabelodon.)
 Roger, O. 1896 A, p. 160. (Mastodon.)
 Scott, W. B. 1893 B, p. 659. (Mastodon proavus.)
 1896 C, p. 179. (Mastodon proavus.)
 Trouessart, E. L. 1896 A, p. 701. (Mastodon.)
 Zittel, K. A. 1893 B, p. 465. [Mastodon (Trilophodon).]
 Miocene (Loup Fork); Montana.

Mammut campestre (Cope).

- Cope, E. D. 1878 C, p. 225. (Tetrabelodon.)
 1878 N, p. 128. (Mastodon.)
 1884 G, p. 5. (Mastodon.)
 1884 V, pp. 524, 526. (Mastodon.)
 1889 J, pp. 195, 204, pls. ix, x. (Tetrabelodon.)
 1893 A, p. 61. (Tetrabelodon.)
 Lydekker, R. 1886 B, p. xi. (Mastodon.)
 Matthew, W. D. 1899 A, p. 68. (Tetrabelodon.)
 Roger, O. 1896 A, p. 160. (Mastodon.)
 Trouessart, E. L. 1896 A, p. 702. (Mastodon.)
 Zittel, K. A. 1893 B, p. 465. [Mastodon (Tetrabelodon).]
 Miocene (Loup Fork); Kansas, Nebraska.

Mammut chapmani (Cope).

- Cope, E. D. 1874 J, p. 222. (Mastodon.)
 1875 F, p. 73. (Mastodon.)
 1877 K, pp. 314, 315. (Mastodon.)
 Hays, I. 1884 A, explan. pl. xxii, figs. 3, 4. (No specific name.)
 Leidy, J. 1869 A, pp. 248, 396. (Mastodon.)
 Trouessart, E. L. 1896 A, p. 701. (Syn. of Mastodon obscurus.)
 The origin of the specimen on which this species rests is unknown. It is not certainly known to be American.

Mammut euhypodon (Cope).

- Cope, E. D. 1884 V, pp. 524, 525. (Mastodon.)
 1884 G, p. 5. (Mastodon.)
 1889 J, pp. 195, 202, pl. xiii, text fig. 7. (Tetrabelodon.)
 Lydekker, R. 1886 B, p. xi. (Mastodon.)
 Matthew, W. D. 1899 A, p. 68. (Tetrabelodon.)
 Roger, O. 1896 A, p. 160.
 Trouessart, E. L. 1896 A, p. 702. (Mastodon euhypodon.)
 Wagner, G. 1899 A, p. 103. (Syn.? of M. shepardii.)
 Zittel, K. A. 1893 B, p. 465. (Mastodon euhypodon.)
 Miocene (Loup Fork); Kansas.

Mammut floridanum (Leidy).

- Leidy, J. 1886 B, p. 11. (Mastodon.)
 Cope, E. D. 1889 J, p. 205. (Tetrabelodon floridanus; syn.? of T. serridens.)
 1892 A.A. (Syn.? of Mastodon serridens.)
 Leidy, J. 1886 C. (Mastodon.)
 1887 A. (Mastodon.)
 1890 C. (Mastodon.)
 1892 A. (Mastodon.)
 Leidy and Lucas 1892 A, pp. viii, 15, pls. i-vii (Mastodon.)
 Trouessart, E. L. 1896 A, p. 702. (Mastodon.)
 Wagner, G. 1899 A, p. 103. (Syn.? of Tetracaulodon shepardii.)
 Zittel, K. A. 1893 B, p. 465. (Mastodon.)
 Pliocene; Florida.

Mammut humboldtii (Cuvier).

- Curier G. 1825, Osm. Foss., ed. 2, vol. v, pt. ii, p. 527. (Mastodon.)
 The specific name is usually spelled *humboldtii*. The original form is here adopted.
 Ameghino, F. 1889 A, p. 645. (Mastodon.)
 Blainville, H. M. D. 1864 A (1845), iii, pp. 240-255, 302. (Mastodon.)

Burmeister, H. 1867 A, p. 288, pl. xiv. (*Mastodon*.)

1889 A, p. 83. (*Mastodon*.)

Cope, E. D. 1884 G, pp. 5, 7. (*Dibelodon*.)

1884 V, p. 525. (*Mastodon*.)

1889 J, p. 195. (*Dibelodon*.)

1892 BB, p. 1059. (*Dibelodon*.)

1893 A, p. 60, pl. xvi, figs. 2-4; pl. xvii, fig. 4. (*Dibelodon*.)

Cuvier, G. 1806 C, p. 413. ("*Mastodonte humboldien*.")

1812, *Oss. Foss.*, ed. 1, vol. II, art. xi, p. 13. ("*Mastodonte humboldien*.")

Gervais, P. 1855 A, p. 18, pl. v, figs. 9, 10. (*M. humboldii*.)

Gervais and Ameghino 1880 A, p. 109. (*Mastodon*.)

Lydekker, R. 1886 B, p. 41, fig. 10. (*Mastodon*.)

Matthew, W. D. 1899 A, p. 75. (*Dibelodon*.)

Meyer, H. 1867 B, p. 64, pl. vi. (*Mastodon*.)

Roger, O. 1896 A, p. 161.

Trouessart, E. L. 1898 A, p. 704. (*Mastodon*.)

Wyman, J. 1855 C, p. 279, pl. xlii. (*Mastodon*.)

Zittel, K. A. 1893 B, p. 464. (*Mastodon*.)

Pliocene (Blanco); South America, Texas.

***Mammot mirificum* (Leidy).**

Leidy, J. 1858 B. (*Mastodon*.)

The following authors refer to this species under the name *Mastodon mirificus*.

Cope, E. D. 1874 J, p. 222.

1877 K, p. 313.

1878 C, pp. 226, 227.

1884 V, p. 525.

1889 J, pp. 196, 206.

1892 G, p. 228.

1893 A, pp. 61, 62.

Hayden, F. V. 1858 B, p. 157.

King, C. 1878 A, p. 412.

Leidy, J. 1858 E, p. 28. [*M. (Tetralophodon)*.]

1869 A, pp. 249, 396, pl. xxv, figs. 1, 2.

1870 J, p. 67.

1871 A, p. 64.

1871 C, p. 358.

1873 B, pp. 237, 330.

Lydekker, R. 1886 B, p. xi.

Matthew, W. D. 1899 A, p. 69. (*Dibelodon*.)

Roger, O. 1896 A, p. 160.

Trouessart, E. L. 1898 A, p. 705.

Zittel, K. A. 1893 B, p. 465.

Miocene (Loup Fork); Nebraska.

***Mammot obscurum* (Leidy).**

Leidy, J. 1869 A, p. 396, pl. xxvii, figs. 13, 157, 167.

Unless otherwise indicated, the following writers call this species *Mastodon obscurus*.

Cope, E. D. 1872 DD.

1874 J, p. 221.

1875 V, p. 51.

1877 K, p. 315.

1880 S.

1884 V, p. 525.

1889 J, pp. 196, 200, 208. (*Tetralodon*.)

Croom, H. B. 1835 A, p. 170. (*M. angustidens*.)

Dana, J. D. 1879 A, p. 233.

Emmons, E. 1856 B, p. 198, fig. 23. (*M. giganteus*.)

Gibbes, R. W. 1850 E. (*M. angustidens*.)

Harlan, R. 1842 B, p. 143. (*M. longirostris*.)

Leidy, J. 1858 D, p. 12. ("*Mastodon*.")

1870 M, p. 99.

1871 A, p. 64.

1871 C, p. 358.

1873 B, pp. 231, 330 (in part), pl. xxii, figs. 1-4.

Lydekker, R. 1884 B, p. 28.

1886 B, pp. x, 30.

Lyell, C. 1843 B, p. 128. (*M. longirostris*.)

1845 A, p. 427. (*M. longirostris*.)

Marsh, O. C. 1897 C, p. 527.

Roger, O. 1896 A, p. 160.

Trouessart, E. L. 1898 A, p. 701.

Warren, J. C. 1850 A. (*M. angustidens*.)

1852 A. (*M. angustidens*.)

1852 C, p. 78, pl. xxvi. (*M. angustidens*.)

Whitfield, R. P. 1888 A, p. 252.

Whitney, J. D. 1879 A, p. 252.

Zittel, K. A. 1893 B, p. 465.

Founded on a cast of a tooth said to have come from the Miocene of Maryland; also reported from North Carolina, South Carolina, Colorado (Pliohippus beds).

***Mammot præcursor* (Cope).**

Cope, E. D. 1893 A, p. 64, pls. xviii, xix. (*Dibelodon*.)

1892 BB, p. 1059. (*Mastodon præcursor*; no description.)

1893 C, p. 203. (*Mastodon*.)

Matthew, W. D. 1899 A, pp. 69, 75. (*Dibelodon*.)

Roger, O. 1896 A, p. 160.

Trouessart, E. L. 1898 A, p. 702. (*Mastodon*.)

Miocene (Loup Fork); Texas. Pliocene (Blanco); Texas.

***Mammot proavus* (Cope).**

Cope, E. D. 1873 CC, p. 10. (*Mastodon*.)

Unless otherwise indicated, the following writers call this species *Mastodon proavus*.

Cope, E. D. 1874 B, p. 531.

1874 J, p. 222.

1874 P, p. 22.

1884 G, p. 5. (*M. angustidens*.)

1884 V, p. 525. (*M. angustidens* var.)

1889 J, pp. 196, 202, pl. xi; text fig. 6. (*Tetralodon angustidens proavus*.)

1892 E, p. 253. ("*M. angustidens* type.")

Lydekker, R. 1884 B, p. 17.

1886 B, p. x.

Matthew, W. D. 1899 A, p. 66. (*Tetralodon angustidens*.)

Roger, O. 1896 A, p. 160.

Scott, W. B. 1893 B, p. 659.

Trouessart, E. L. 1898 A, p. 702.

Zittel, K. A. 1893 B, p. 465.

Miocene (Loup Fork); Kansas, Nebraska, Colorado, New Mexico.

***Mammot productum* Cope.**

Cope, E. D. 1874 J, p. 221. (*Mastodon*.)

Unless otherwise indicated, the following authors call this species *Mastodon productus*.

Amer. Jour. Science 1875 A, p. 222.

Cope, E. D. 1875 F, p. 72.

1877 K, pp. 24, 306, pls. lxx, lxxii.

1884 G, p. 5.

1884 V, p. 524.

- Cope, E. D. 1889 J, pp. 195, 204. (Tetrabelodon.)
 1893 A, p. 58.
 1893 C, p. 203.
 Leidy, J. 1873 B, pp. 235, 330 (in part), pl. xxii,
 figs. 1-4. (M. obscurus.)
 Lydekker, R. 1886 B, p. x.
 Matthew, W. D. 1899 A, p. 68. (Tetrabelodon.)
 Roger, O. 1896 A, p. 160.
 Trouessart, E. L. 1898 A, p. 702.
 Zittel, K. A. 1893 B, p. 465.
 Miocene (Loup Fork); New Mexico.

Mammut rugosidens (Leidy.)

- Leidy, J. 1890 B. (Mastodon.)
 Roger, O. 1896 A, p. 161. (Mastodon.)
 Trouessart, E. L. 1898 A, p. 702. (Mastodon.)
 Zittel, K. A. 1893 B, p. 465. (Mastodon.)
 Upper Pliocene; South Carolina.

Mammut serridens (Cope).

- Cope, E. D. 1884 V, pp. 524, 525, pl. iii, figs. 2, 3.
 (Mastodon.)
 1884 G, pp. 5, 7. (Mastodon.)
 1885 S. (Mastodon.)
 1889 F, p. 164. (Mastodon.)
 1889 J, pp. 200, 205, fig. 8. (Tetrabelodon.)
 1892 AA. (Mastodon.)
 1893 A, p. 18, pl. iii, figs. 2, 3. (Tetrabelodon
 serridens cimarronis.)
 Leidy and Lucas 1896 A, p. 18. (Mastodon.)
 Lydekker, R. 1886 B, p. x. (Mastodon.)
 Matthew, W. D. 1899 A, p. 68. (Tetrabelodon.)
 Roger, O. 1896 A, p. 160. (Mastodon.)
 Trouessart, E. L. 1898 A, p. 702. (Mastodon.)
 Zittel, K. A. 1893 B, p. 465. (Mastodon.)
 Miocene (Loup Fork); Texas.

Mammut shepardi (Leidy).

- Leidy, J. 1870 M, p. 98. (Mastodon.)
 Bowers, S. 1889 A. (Mastodon.)
 Cope, E. D. 1874 J, p. 222. (Mastodon.)
 1884 G, p. 5. (Dibelodon.)
 1884 V, pp. 524, 525. (Mastodon.)
 1889 F. (Dibelodon.)

- Cope, E. D. 1889 J, p. 204. (Dibelodon shepardi,
 D. tropicus.)
 1892 E, p. 253. (Dibelodon.)
 1892 G, p. 228. (Mastodon.)
 1893 A, p. 57, pl. xv. (Tetrabelodon.)
 1893 C. (Tetrabelodon.)
 1893 P, p. 473, pl. xii. (Tetrabelodon.)
 1893 Q, p. 812. (Tetrabelodon.)
 Felix and Lenk 1891 A, p. 132, pl. xxx, fig. 1.
 (Mastodon.)
 Leidy, J. 1871 A, p. 64. (Mastodon.)
 1871 C, p. 358. (Mastodon.)
 1871 J. (Mastodon.)
 1872 K, p. 142. (M. obscurus.)
 1873 B, pp. 231, 330 (in part), pl. xxi, figs.
 1-4. (M. obscurus.)
 Matthew, W. D. 1899 A, p. 75. (Tetrabelodon.)
 Roger, O. 1896 A, p. 161. (Mastodon.)
 Trouessart, E. L. 1898 A, p. 702. (Mastodon.)
 Wagner, G. 1899 A, p. 99, pls. xxiv, xxv. (Te-
 tracaulodon.)
 Zittel, K. A. 1893 B, p. 465. (Mastodon.)
 Pliocene (Blanco); California, Texas, Kansas,
 Mexico.

Mammut tropicum (Cope).

- Cope, E. D. 1884 G, p. 7. (Dibelodon.)
 1889 J, pp. 195, 198. (Dibelodon.)
 1892 G, p. 227. (Mastodon successor.)
 1892 J, p. 123. (Mastodon sp.)
 1892 BB, p. 1059. (Dibelodon.)
 1893 A, pp. 58, 59, 62, pl. xvi, fig. 1; pl. xvii,
 figs. 1-3. (Dibelodon.)
 1893 C, p. 203. (Dibelodon.)
 Felix and Lenk 1891 A, p. 133. (Mastodon.)
 Lydekker, R. 1886 B, p. xi. (Mastodon.)
 Matthew, W. D. 1899 A, p. 75. (Dibelodon.)
 Meyer, H. 1867 B, p. 64, pl. vi. (Mastodon hum-
 boldtii.)
 Roger, O. 1896 A, p. 161. (Mastodon successor.)
 Trouessart, E. L. 1898 A, p. 708. (Mastodon.)
 Zittel, K. A. 1893 B, p. 46. (Syn. of Mastodon hum-
 boldtii.)
 Pliocene (Blanco); Texas, Mexico, South
 America.

ELEPHAS Linn. Type *E. maximus* Linn.

- Linnaeus, C. 1758 Syst. Nat., ed. 10, i, p. 33.
 Adams, A. L. 1874 A.
 1877 B.
 1879 A.
 1881 A.
 Blainville, H. M. D. 1867 A, iii, 8, plates.
 Brandt, J. F. 1869 A, p. 34.
 Cope, E. D. 1889 J, p. 194.
 1893 M, p. 1015.
 Cuvier, G. 1806 A.
 1834 A, i, p. 455, ii, pp. 1-373.
 Falconer, H. 1857 B. (Elephas, with subgenera
 Stegodon, Loxodon, and Euelephas.)
 1865 A.
 1868 A.
 Falconer and Cautley, 1846 A.
 Flower, W. H. 1876 B, xiii, p. 351.
 1883 D, p. 425.
 1885 A.
 Flower and Lydekker, 1891 A, p. 424.

- Gaudry, A. 1878 B, p. 175.
 Grant, E. 1842 A, p. 771.
 Gray, J. E. 1869 A, p. 359.
 Leuthardt, F. 1891 A.
 Lydekker, R. 1880 A, pp. 197, 256.
 1886 B, p. 75.
 Marsh, O. C. 1877 E.
 Möbius, K. 1892 A.
 Naumann, E. 1879 A.
 Nicholson and Lydekker, 1889 A, p. 1401.
 Owen, R. 1844 A, p. 208.
 1845 B, p. 625.
 1868 A, p. 360, figs. 289-292.
 Paulli, S. 1900 A, p. 236.
 Pictet, F. J. 1853 A, p. 280.
 Pohl, H. 1889 A.
 1892 B.
 Quenstedt, F. A. 1885 A, p. 67.
 Röse, C. 1893 A.
 Rüttimeyer, L. 1888 A, p. 11.

- Scott, W. B. 1887 A.
 Steinmann and Döderlein 1890 A, p. 760.
 Thomas, O. 1890 A.
 Turner, H. N. 1848 A, p. 71.
 Weber, M. 1898 A, p. 135.
 Welthofer, K. A. 1890 A.
 1893 A.
 Woodward, A. S. 1898 B, p. 305.
 Zittel, K. A. 1893 B, p. 467.

Elephas columbi Falconer.

- Fulconer, H.* 1857 B, p. 319. [E. (Euelephas).]
 Bell, R. 1898 A, p. 371, fig. 1.
 Blake, C. C. 1862 A, pl. iv. (E. texianus).
 1862 B. (E. texianus).
 Briggs and Foster in Billings, E. 1863 A, figs. 1-5.
 (E. jacksoni).
 Cope, E. D. 1874 J, p. 221. (E. primigenius columbi).
 1899 J, p. 209, pl. xiv. (E. primigenius columbi).
 1894 A, p. 68. (E. primigenius var.)
 Cragin, F. W. 1896 A, p. 63. (E. imperator?).
 Dall, W. H. 1891 A.
 Dawkins, W. B. 1870 A, p. 232.
 Donald, J. F. 1871 A. (E. primigenius var. jacksoni).
 Edwards, A. M. 1865 A.
 Falconer, H. 1868 A, ii, p. 212, pl. x.
 Felix and Lenk 1891 A, p. 131.
 Gervais and Ameghino 1880 A, p. 213.
 Hayden, F. V. 1858 B, p. 157.
 ?Kindle, E. M. 1898 A, p. 485. (E. americanus).
 Leidy, J. 1858 B, p. 10. (E. Imperator).
 1858 E, p. 29. [E. (Euelephas) Imperator].
 1869 A, p. 397. (E. americanus in part.)
 1870 M, p. 97.
 1871 C, p. 359. (E. americanus, part.)
 1873 B, pp. 238, 329. (E. americanus, part.)
 1873 G.
 1875 A, p. 121. (E. americanus, part.)
 1877 A, p. 213. (E. americanus).
 1889 D, p. 17, pl. iii, figs. 8, 9. (E. americanus, or E. columbi).
 1892 A, p. 129.

- Logan, W. E. 1863 A, p. 914, figs. 495-498. (Euelephas jacksoni).
 Lucas, F. A. 1900 A, p. 349.
 Lydekker, R. 1886 B, pp. x1, 171.
 Mather, W. W. 1838 A, p. 362. (E. jacksoni).
 Miller, G. S. 1899 B, p. 373.
 Nicholson and Lydekker 1889 A, p. 1406.
 Owen, R. 1859, Rep. Brit. Assoc. Adv. Sci. for 1858, p. lxxxvi. (E. texianus, without description).
 Pohlig, H. 1887 A, p. 117. (E. trogontheri?, E. columbi).
 1899 A, p. 247. (E. columbi, E. Imperator).
 1892 B, p. 327.

Trouessart, E. L. 1898 A, p. 711.

Zittel, K. A. 1893 B, p. 473.

Pleistocene; Georgia, South Carolina, Alabama, Texas, Colorado, Oregon, New Mexico, California, New York?, Florida, Mexico, Northwest Territory, Hudson Bay.

Elephas primigenius Blumenbach.

Blumenbach, J. F., 1803, Handb. Naturg., 1st French ed., vol. ii, p. 407. (*Fide* Lydekker.)

- Adams, A. L. 1879 A.
 1881 A.
 Agassiz, L. 1850 A, p. 100. ("Elephant.")
 Amer. Geologist 1891 F.
 Amer. Jour. Science 1853 B, p. 146.
 Anonymous 1834 A. ("Elephant.")
 1837 A. ("Elephant.")
 Baer, K. E. 1866 A.
 1867 A.
 Barbour, E. H. 1890 A
 Barton, B. S. 1805 A, p. 98. ("Elephant.")
 Bell, R. 1898 A.
 Beyer, S. W. 1899 A, p. 211.
 Blainville, H. M. D. 1864 A, iii 8, pls. iii, v, vi, viii, x.
 Blake, W. P. 1855 A.
 1864 A. ("Elephas.")
 1867 B.
 1900 A, p. 257.
 Blatchley, W. S. 1898 A, p. 89.
 Brandt, J. F. 1848 A.
 1866 A.
 1866 B.
 1867 A.
 Buckland, W. 1831 A, p. 594, pls. i, ii.
 Carpenter, W. M. 1846 A, p. 249. ("Elephant")
 Chaloner, A. D. 1843 A, p. 321. ("Elephant.")
 Charlton, O. C. 1890 A.
 Cooper, W. 1831 A, p. 168.
 1843, Proc. Geol. Soc. Lond., p. 33. ("Mammoth.")
 Cooper, Smith, and De Kay 1831 A, p. 371. ("Elephant.")
 Cope, E. D. 1884 G, p. 8.
 1888 B, p. 293.
 1889 F.
 1889 J, p. 207, pl. xvi, fig. 20.
 1889 S.
 1893 A, p. 87.
 1894 A, p. 68.
 1894 H, p. 453.
 Cope and Wortman 1894 A, p. 32, pl. vi, figs. 2-5.
 Cottle, T. 1852 A.
 1853 A.
 Couper, J. H. 1842 A, p. 217. ("Mammoth.")
 1846 in Hodson, W. B. 1846 A, p. 45.
 Cuvier, G. 1799 A, p. 15, pls. v, vi. ("Mammoth.")
 1806 A, pp. 45, 149, 264.
 1834 A, ii, pp. 1-246, with plates.
 C. D. 1838 A.
 Dall, W. H. 1869 A.
 1873 A.
 Davison, C. 1894 A.
 Dawkins, W. D. 1870 A, p. 233.
 Dawson, G. M. 1894 A.
 De Kay, J. G. 1842 C, p. 100 (E. primigenius); p. 101, pl. xxxii (E. americanus).
 Diffenberger, F. R. 1873 A. (E. americanus).
 Dupont, E. 1867 A.
 Duralde, M. 1804 A.
 Edwards, A. M. 1865 A.
 Edwards, T. 1793 A. (No name.)
 Emmons, E. 1858 B, p. 200, fig. 24.
 Falconer, H. 1857 B. [E. (Euelephas) primigenius].
 1865 A.
 Falconer and Cantley 1846 A, pl. i, fig. 1; pl. xiii, A, figs. 1-3; pl. xiii B, figs. 1-3.

- Felix and Lenk 1891 A, pp. 126, 131.
 Flower, W. H. 1876 B, xiii, 351.
 1883 C.
 Flower and Lydekker 1891 A, p. 428, figs. 184, 185.
 Foster, J. W. 1838 A, p. 79. (E. primigenius.)
 1839 A, p. 190, fig. 2. ("Elephant.")
 1857 A.
 1872 A, p. 443. (E. mississippiensis.)
 Gaudry, A. 1872 A.
 1873 A.
 Gazley, S. 1830 A. ("Elephant.")
 Geinitz, H. B. 1885 A, p. 66, pl. iii.
 Gibbs, R. W. 1850 D.
 Glebel, C. G. 1847 A, p. 208.
 Godman, J. D. 1823 A, ii, pp. 255-265.
 Harlan, R. 1823 A. ("Elephant.")
 1825 A, p. 207.
 1828 A, p. 189.
 1834 B, p. 57.
 1835 B, p. 263.
 1835 G, p. 359. ("Elephant.")
 1842 E.
 Hammond, R. 1844 A, p. 294. ("Megatherium.")
 Hays, I. 1844 A, p. 43. ("Elephant.")
 Higley, W. K. 1866 A, plate.
 Holmes, F. S. 1850 B, p. 203. ("Elephant.")
 Horner, W. E. 1840 A, p. 299. ("Elephant.")
 Howorth, H. W. 1870 A.
 1881 A.
 1881 B.
 1892 A.
 1898 A.
 1894 A.
 Hutchinson, H. N. 1893 A, p. 193, pl. xx.
 Kindie, E. M. 1898 A, p. 485.
 Lambe, L. M. 1898 A, p. 136.
 Landols —, 1871 A, p. 47, pl. ix.
 Ledy, J. 1854 A, p. 9. (E. americanus.)
 1860 B, p. 108, pl. xviii. (E. americanus.)
 1869 A, pp. 251, 397. (E. primigenius, E. americanus.)
 1870 K, p. 69. (E. americanus.)
 1871 C, p. 359 (E. americanus.)
 1875 A. (E. americanus, part.)
 1877 A, p. 212. (E. americanus.)
 1889 D, p. 17, pl. iii, figs. 6-9.
 1889 E, p. 22.
 Lucas, F. A. 1899 A, p. 764.
 1900 A, p. 349, figures.
 Lydekker, R. 1886 B, p. 175, figs. 30-32.
 Lyell, C. 1843 C, p. 33. ("Elephant.")
 Madison, —. 1806 A, p. 486.
 Marsh, O. C. 1877 E, p. 367. (E. americanus.)
 Meyer, H. 1852 A, pl. xiv, figs. 1-4.
 Mitchell, S. L. 1818 A, pl. vi, figs. 2, 3, 5, 6. ("Elephant.")
 Möbius, K. 1892 A.
 Nature 1871 A.
 Naumann, E. 1879 A, pls. i-vii.
 Newberry, J. G. 1870 A, p. 77. (E. primigenius.)
 Newberry, J. G. 1871 A, p. 241. (E. americanus.)
 Nicholson and Lydekker 1889 A, pp. 1404, 1406.
 Owen, R. 1844 A, p. 210.
 1845 B, p. 628, pl. cxlviii, figs. 5-8.
 1846 B, p. 217, figs. 85, 86, 90-95.
 1847 A.
 Packard, A. S. 1868 A, p. 33. (E. americanus.)
 1886 A.
 Pantón, J. H. 1891 A.
 1892 A.
 Parker, H. W. 1884 A.
 Pictet, F. J. 1853 A, p. 283.
 Pohlig, H. 1887 A, p. 117.
 1887 B, p. 254.
 1889 A, p. 248. (E. primigenius, E. americana.)
 1892 B, p. 327. (E. primigenius, E. americana.)
 Quenstedt, F. A. 1835 A, p. 68, pl. iv, figs. 11-12.
 Richardson, J. 1854 A, p. 11 (Mastodon giganteus);
 p. 141 (E. primigenius).
 1855 A, p. 132.
 Rogers, H. D. 1854 A.
 Schmidt, F. 1872 A.
 Shaler, N. S. 1871 A, p. 148.
 1871 B, p. 167.
 Steinmann and Döderlein 1880 A, p. 761.
 Steitz, A. 1870 A.
 Stirrup, M. 1893 A.
 1894 A.
 Thompson, Z. 1850 A, p. 256. ("Elephant.")
 1853 A, p. 14.
 Toll, E. 1895 A. ("Mammoth.")
 Troost, G. 1835 A, p. 143. (Elaphus primigenius)
 Trouessart, E. L. 1898 A, p. 711.
 Turner, G. 1799 A. ("Mammoth.")
 Van Rensselaer, J. 1823 A, ("Elephant.")
 Walles, B. L. C. 1854 A, p. 286.
 Warren, J. C. 1852 C, p. 142.
 Weithofer, C. A. 1893 A.
 Whitney, J. D. 1879 A, p. 254.
 Williston, S. W. 1898 I, p. 91.
 Winchell, A. 1863 A.
 Winslow, C. F. 1857 A.
 1868 A.
 Wistar, C. 1818 A. ("Elephant.")
 Woodhull, A. A. 1872 A.
 Woodward, H. 1869 A.
 Woolworth, S. 1847 A, p. 31, fig. 1. (E. americanus.)
 Worthen, A. H. 1871 A.
 Wylie, T. A. 1859 A.
 Wyman, J. 1853 B.
 1857 A. ("Elephant.")
 Yates, L. G. 1874 B, p. 18.
 Zittel, K. A. 1893 B, p. 469, figs. 387-390.
 Pleistocene; New York, Vermont, New Jersey, Pennsylvania, Alaska, British Columbia, Ontario, Alberta, Mexico, Arizona, Montana, Colorado, Michigan, Kentucky, Ohio, Missouri, Illinois, Iowa, Indiana, Kansas, Georgia, North Carolina, South Carolina, Texas, Oklahoma, California, Oregon.

Order TILLODONTIA Marsh.

Marsh, O. C. 1875 C, p. 221.

Cope, E. D. 1875 C, p. 23.

1876 A, pp. 3, 4. (Tillodonta.)

1877 K, pp. 85, 370. (Tillodonta.)

1882 E, p. 146.

1882 L.

1883 I, p. 79.

1884 O, pp. 186, 194, 739. (Tillodonta.)

1887 S, p. 343.

1889 C, p. 144.

1891 L, p. 1117.

1891 N, p. 73.

1893 M, p. 1015.

1898 B, p. 115.

Flower, W. H. 1876 B, xiii, p. 514.

Flower and Lydekker 1891 A, p. 441.

Gadow, H. 1898 A, p. 42.

Haeckel, E. 1895 A, pp. 501, 502.

Hay, O. P. 1899 F, p. 682.

Lydekker, R. 1887 A, p. 1.

Lydekker, R. 1896 B, p. 378.

Marsh, O. C. 1876 B, p. 249.

1876 G, p. 60.

1877 E.

1892 D, p. 448.

1895 D, p. 498.

Nicholson and Lydekker 1889 A, p. 1408. (Tillodonta, Anchippodonta.)

Osborn, H. F. 1888 F.

1893 D.

1898 A, p. 146.

Osborn and Earle 1895 A, p. 40.

Roger, O. 1896 A, p. 88.

Schlosser, M. 1890 C, p. 250.

Steinmann and Döderlein 1890 A, p. 728.

Tomes, C. S. 1898 A, p. 446.

Woodward, A. S. 1898 B, p. 374.

Wortman, J. L. 1885 A, p. 298.

1897 B, p. 61.

Zittel, K. A. 1893 B, pp. 508, 725.

ESTHONYCHIDÆ.

Cope, E. D. 1889 R, p. 876.

Haeckel, E. 1895 A, p. 502. (Esthonychida.)

Matthew, W. D. 1899 A, p. 42.

Nicholson and Lydekker 1889 A, p. 1409. (Platychoeropidæ.)

Roger, O. 1896 A, p. 88.

Steinmann and Döderlein 1890 A, p. 729.

Trouessart, E. L. 1898 A, p. 665. (Esthonychidæ.)

Zittel, K. A. 1893 B, p. 6.

ESTHONYX Cope. Type *E. bisulcatus* Cope.

Cope, E. D. 1874 O, p. 6.

1876 C.

1877 K, p. 158.

1882 E, p. 146.

1882 L.

1883 I, p. 77.

1884 O, pp. 194, 196, 202, 738.

1884 S, pp. 351, 479.

1885 T.

1886 X, p. 1206.

1888 I, p. 4.

1888 K, p. 163.

1889 C, p. 221.

Lydekker, R. 1885 D. (Syn. of Platychoerops.)

1887 A, p. 3.

Nicholson and Lydekker 1889 A, p. 1409.

Schlosser, M. 1890 C, p. 252.

Scott, W. B. 1892 D, p. 80.

Tomes, C. S. 1898 A, p. 446.

Woodward, A. S. 1898 B, p. 375.

Wortman, J. L. 1885 A, p. 299.

1886 A, p. 425.

1897 B, pp. 62, 63.

Zittel, K. A. 1893 B, p. 506.

Esthonyx acer Cope.

Cope, E. D. 1874 O, p. 7.

1875 C, p. 24. (Syn. of *E. bisulcatus*.)1877 K, p. 154. (Syn. of *E. bisulcatus*.)

1882 E, p. 148.

1884 O, p. 204.

1884 S, p. 480.

Matthew, W. D. 1899 A, p. 81.

Roger, O. 1896 A, p. 88.

Trouessart, E. L. 1898 A, p. 665.

Eocene (Wasatch); New Mexico.

Esthonyx acutidens Cope.

Cope, E. D. 1881 D, p. 185.

1882 E, p. 148.

1884 O, pp. 204, 210, pl. xxiva, figs. 17-21.

Matthew, W. D. 1899 A, p. 86.

Roger, O. 1896 A, p. 88.

Trouessart, E. L. 1898 A, p. 665.

Wortman, J. L. 1897 B, p. 62.

Eocene (Wind River); Wyoming.

Esthonyx bisulcatus Cope.

Cope, E. D. 1874 O, p. 6.

1875 C, p. 24.

1877 K, p. 154, pl. xl, figs. 27-33.

1884 O, p. 204.

Kling, C. 1878 A, p. 377.

Matthew, W. D. 1899 A, p. 81.

Roger, O. 1896 A, p. 88.

Trouessart, E. L. 1898 A, p. 665.

Eocene (Wasatch); New Mexico.

Esthonyx burmeisterii Cope.

Cope, E. D. 1874 O, p. 7.

1875 C, p. 24.

1877 K, p. 156, pl. xl, fig. 28.

1882 E, p. 147.

1884 O, p. 204, pl. xxivc, figs. 1-10.

- Cope, E. D. 1884 S, p. 479, fig. 23.
 Lydekker, R. 1887 A, p. 3.
 Matthew, W. D. 1899 A, p. 31.
 Nicholson and Lydekker 1889 A, p. 1409, fig. 1290.
 Roger, O. 1896 A, p. 88.
 Trouessart, E. L. 1898 A, p. 665.
 Woodward, A. S. 1898 B, p. 375, fig. 212.
 Wortman, J. L. 1896 A, p. 425, fig. 207.
 Zittel, K. A. 1893 B, p. 506, fig. 419.
 Eocene (Wasatch); New Mexico, Wyoming.

***Esthonyx spatularius* Cope.**

- Cope, E. D. 1880 O, p. 908.
 1881 D, p. 187.
 1882 E, p. 148.
 1884 O, pp. 204, 211, pl. xxiva, figs. 22-25.
 1884 S, p. 479.
 Matthew, W. D. 1899 A, pp. 31, 36.
 Roger, O. 1896 A, p. 88.
 Trouessart, E. L. 1898 A, p. 665.
 Eocene (Wasatch, Wind River); Wyoming.

ANCHIPPONENTIDÆ.

- Gill, T. 1872 B, p. 87.
 Flower, W. H. 1876 C, p. 22. (Tillotheridæ.)
 Gadow, H. 1898 A, p. 42. (Tillotheridæ.)
 Haeckel, E. 1895 A, p. 502. (Tillotherida.)
 Lydekker, R. 1887 A, p. 1. (Anchippodontidæ.)
 1896 B, p. 378. (Anchippodontidæ.)
 Marsh, O. C. 1875 C, p. 221. (Tillotheridæ, Anchippodontidæ.)

- Marsh, O. C. 1876 G, p. 60. (Tillotheridæ.)
 1877 E. (Tillotheridæ.)
 Nicholson and Lydekker 1889 A, p. 1406. (Anchippodontidæ.)
 Roger, O. 1896 A, p. 88. (Tillotheridæ.)
 Steinmann and Döderlein 1890 A, p. 730. (Tillotheridæ.)
 Zittel, K. A. 1893 B, p. 506. (Tillotheridæ.)

TILLOTHERIUM Marsh. Type *T. hyracoides* Marsh.

- Marsh, O. C. 1873 H, p. 485.
 Cope, E. D. 1882 E, p. 146.
 1882 L.
 1884 O, p. 195.
 1888 I.
 1888 L.
 Flower, W. H. 1876 B, xlii, p. 514.
 1876 C, p. 123.
 Flower and Lydekker 1891 A, p. 441.
 Lydekker, R. 1887 A, p. 1.
 Marsh, O. C. 1875 B, p. 241.
 1875 C.
 1876 B, pls. viii, ix.
 1876 G, p. 60.
 1877 E.
 1895 D, p. 498.
 Nicholson and Lydekker 1889 A, p. 1408.
 Osborn, H. F. 1897 G, p. 252.
 Schlosser, M. 1890 C, p. 275.
 1892 A, p. 226.
 Steinmann and Döderlein 1890 A, p. 730.
 Tomes, C. S. 1898 A, p. 416.
 Woodward, A. S. 1898 B, p. 376.
 Wortman, J. L. 1896 A, p. 433.
 1897 B, pp. 61, 63.
 Zittel, K. A. 1893 B, p. 507.

***Tillotherium fodiens* Marsh.**

- Marsh, O. C. 1875 B, p. 241.
 Flower, W. H. 1876 C, p. 123, fig. 8.
 Flower and Lydekker 1891 A, p. 441, fig. 198.
 King, C. 1878 A, p. 404.

- Lydekker, R. 1887 A, p. 2, fig. 2.
 Marsh, O. C. 1876 B, p. 250, pl. viii; pl. ix, figs. 1-3; text fig. 1.
 1895 D, p. 498, fig. 48.
 Matthew, W. D. 1899 A, p. 42.
 Nicholson and Lydekker 1889 A, p. 1408, fig. 1290.
 Osborn, H. F. 1897 G, p. 257.
 Roger, O. 1896 A, p. 88.
 Trouessart, E. L. 1898 A, p. 666.
 Woodward, A. S. 1898 B, p. 376, fig. 213.
 Wortman, J. L. 1897 B, p. 63.
 Zittel, K. A. 1893 B, p. 507, fig. 420.
 Eocene (Bridger); Wyoming, Colorado.

***Tillotherium hyracoides* Marsh.**

- Marsh, O. C. 1873 H, p. 485.
 King, C. 1878 A, p. 404.
 Matthew, W. D. 1899 A, p. 42.
 Roger, O. 1896 A, p. 88.
 Trouessart, E. L. 1898 A, p. 666.
 Eocene (Bridger); Wyoming.

***Tillotherium latidens* Marsh.**

- Marsh, O. C. 1874 C, p. 533.
 1876 B, explan. pl. ix, fig. 4.
 Matthew, W. D. 1899 A, p. 42.
 Roger, O. 1896 A, p. 88.
 Trouessart, E. L. 1898 A, p. 666.
 Wortman, J. L. 1897 B, p. 63.
 Zittel, K. A. 1893 B, p. 507, fig. 421.
 Eocene (Bridger); Wyoming.

ANCHIPPUS Leidy. Type *A. riparius* Leidy.

- Leidy, J. 1868 I, p. 232.
 Cope, E. D. 1873 E, p. 605.
 1873 G, p. 208.
 1875 J, p. 3.
 1876 A, p. 3.
 1876 C.
 1884 O, p. 195.
 1888 L.
 Flower, W. H. 1876 C, p. 122.

- Flower and Lydekker 1891 A, p. 441.
 Leidy, J. 1871 F, p. 114. (Trogosus, type *T. exstolidens*.)
 1872 B, p. 359. (Trogosus.)
 1873 B, p. 328.
 Lydekker, R. 1887 A, p. 1.
 Marsh, O. C. 1874 B, p. 255.
 1875 B, p. 241.
 1877 E.

Nicholson and Lydekker 1889 A, pp. 1408, 1410.
Wortman, J. L. 1897 B, p. 61.
Zittel, K. A. 1893 B, p. 508.

Anchippodus minor (Marsh).

Marsh, O. C. 1871 D, p. 36. (Palæosyops.)
Cope, E. D. 1873 E, p. 606.
Flower, W. H. 1876 B, xlii, p. 252.
King, C. 1878 A, p. 404.
Leidy, J. 1871 F, p. 114. (Trogonus castoridens.)
1871 I. (Palæosyops minor.)
1872 B, p. 360. (Trogonus castoridens.)
1872 D, p. 37. (A. riparius.)
1873 B, p. 71, pl. v, figs. 1-3. (Trogonus castoridens); p. 328 (A. riparius).
Lydekker, R. 1887 A, p. 2. (Syn. of A. riparius.)
Marsh, O. C. 1873 H, p. 485. (Anchippodus.)
1876 B, p. 252, pl. ix, fig. 5. (Anchippodus.)
Matthew, W. D. 1899 A, p. 42.
Roger, O. 1896 A, p. 88 (Syn. of A. riparius); p. 192 (Palæosyops).
Trouessart, E. L. 1898 A, p. 666 (A. riparius, in part); p. 738 (Palæosyops minor, in part).
Wortman, J. L. 1897 B, p. 63. (Tillotherium.)
Zittel, K. A. 1893 B, p. 508, fig. 422.
Eocene (Bridger); Wyoming.

Anchippodus riparius Leidy.

Leidy, J. 1868 I, p. 232.
Conrad, T. A. 1869 A, p. 363.
Cope, E. D. 1869 N, p. 740.
Flower, W. H. 1876 B, xlii, p. 514.
1876 C, p. 120.
Leidy, J. 1869 A, p. 408, pl. xxx, figs. 45, 46.
1872 D, p. 37.
1873 B, pp. 72, 828, in part.
Lydekker, R. 1887 B, p. 2, in part.
Matthew, W. D. 1899 A, p. 42.
Roger, O. 1896 A, p. 88.
Trouessart, E. L. 1898 A, p. 666.
Zittel, K. A. 1893 B, p. 508.
Eocene; New Jersey.

Anchippodus vetulus Leidy.

Leidy, J. 1871 K, p. 229. (Trogonus.)
1872 B, p. 360. (Trogonus.)
1873 B, p. 75 (Trogonus); p. 329, pl. vi, fig. 43. (Anchippodus).
Matthew, W. D. 1899 A, p. 42.
Roger, O. 1896 A, p. 88.
Trouessart, E. L. 1898 A, p. 666.
Eocene (Bridger); Wyoming.

Order GLIRES Linn.

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 56. (Exclusive of Rhinoceros.)

Unless otherwise indicated, the following authors denominate this group *Rodentia*.

Adloff, P. 1898 A. ("Rodentien.")
Allen, J. A. 1877 A.
Alston, E. R. 1876 A. (Glires.)
Baird, S. F. 1857 A, p. 235.
Brandt, J. F. 1885 A.
Cope, E. D. 1874 B, p. 474.
1880 B. 455.
1881 E.
1881 J, p. 545.
1883 S.
1884 O, pp. 166, 812.
1887 S, p. 342.
1888 D, p. 257.
1888 I.
1889 C, p. 143.
1889 R, pp. 875, 876. (Glires.)
1893 M, p. 1015.
1898 B, p. 111. (Glires.)
Cope and Wortman 1894 A, p. 36.
Coues, E. 1877 B.
Cuvier, G. 1834 A, viii, pt. i, pp. 1-128, with plates.
Fleischmann, A. 1888 A.
Flower, W. H. 1883 A.
1883 D, p. 415.
1885 A.
Flower and Lydekker 1891 A, p. 443.
Gadow, H. 1896 A, p. 42.
Gill, T. 1872 A, p. 303. (Glires.)
1872 B, p. 20. (Glires.)
Gill and Coues 1877 A, p. 1061.
Gruber, W. 1869 A. (Glires.)
Haeckel, E. 1896 A, p. 506.
Hay, O. P. 1899 F, p. 682. (Glires.)
Huxley, T. H. 1872 A, p. 369.
Leidy, J. 1871 C, p. 363.
Lydekker, R. 1896 B.

Major, Fors. 1893 A, p. 202.
Marsh, O. C. 1877 E.
Nicholson and Lydekker 1889 A, p. 1411.
Osborn, H. F. 1900 C, p. 567.
Owen, R. 1845 B, p. 398.
1851 C.
1866 B, p. 364.
1868 A, p. 294.
Palmer, T. S. 1897 A, p. 103.
Parker, W. K. 1868 A, p. 207.
1885 A, p. 192.
Parsons, F. G. 1899 A.
1900 A.
Pauill, S. 1900 B, p. 539.
Roger, O. 1896 A, p. 110.
Schlosser, M. 1884 A.
1884 B.
1888 A.
1889 A.
1890 A.
1890 C.
1890 D.
Scott, W. B. 1892 A, p. 426.
Slade, D. D. 1888 A, p. 243.
1890 A.
1892 B.
Smith J. 1895 A, p. 341.
Steinmann and Döderlein 1890 A, p. 731.
Thomas, O. 1896 A, p. 1012.
Tomes, C. S. 1896 A, p. 448.
Tomes, J. 1350 A, p. 529.
Trouessart, E. L. 1898 A, p. 388.
Tullberg, T. 1899 A.
Turner, H. N. 1848 A.
Weyhe, — 1875 A, p. 111.
Winge, H. 1888 A, p. 163.
Woodward, A. S. 1898 B, p. 373.
Woodward, M. F. 1894 A.
Wortman, J. L. 1886 A, p. 466.
Zittel, K. A. 1893 B, pp. 512, 553, 727.

Suborder SIMPLICIDENTATA.

Alston, E. R. 1876 A.
 Flower and Lydekker 1891 A, p. 448.
 Nicholson and Lydekker 1889 A, p. 1413.
 Palmer, T. S. 1897 A.

Schlosser, M. 1884 A, p. 123. (Miodonta.)
 Thomas, O. 1896 A, p. 1015.
 Tullberg, T. 1899 A, pp. 57, 341.
 Woodward, A. S. 1898 B, p. 377.

Superfamily SCIUROMORPHA.

Alston, E. R. 1876 A.
 Brandt, J. F. 1855 A.
 Cope, E. D. 1881 E, p. 361.
 1883 S, p. 43.
 1884 O, p. 812.
 Flower, W. H. 1883 D, p. 417.
 Flower and Lydekker 1891 A, p. 448.
 Gadow, H. 1898 A, p. 42.
 Haeckel, E. 1896 A, p. 509.
 Lydekker, R. 1896 B.
 Nicholson and Lydekker 1889 A, p. 1419.

Palmer, T. S. 1897 A.
 Schlosser, M. 1884 A, p. 96.
 1890 C, p. 250.
 Slade, D. D. 1888 A, p. 243.
 1892 B.
 Roger, O. 1896 A, p. 115.
 Steinmann and Döderlein 1890 A, p. 732.
 Thomas, O. 1896 A, p. 1015.
 Tullberg, T. 1899 A, pp. 283, 461. (Sciuromorphi.)
 Zittel, K. A. 1893 B, p. 521 (Protrugomorpha): p. 527 (Sciuromorpha).

SCIURIDÆ.

Allen, J. A. 1877 A, xi, p. 637.
 Alston, E. R. 1876 A.
 Baird, S. F. 1857 A, p. 240.
 Brandt, J. F. 1855 A.
 Cope, E. D. 1888 I, p. 9.
 1889 C, p. 267.
 1893 M, p. 1015.
 Flower and Lydekker 1891 A, p. 450.
 Ledy, J. 1871 C, p. 363.
 Major, Fors. 1873 A.
 1893 A, p. 186.
 Marsh, O. C. 1877 D, p. 253. (Allomyidæ.)

Nicholson and Lydekker 1889 A, p. 1420.
 Roger, O. 1896 A, p. 115.
 Schlosser, M. 1890 C, p. 250.
 Steinmann and Döderlein 1890 A, p. 733.
 Thomas, O. 1896 A, p. 1015.
 Tones, J. 1850 A, p. 536.
 Trouessart, E. L. 1898 A, p. 395.
 Tullberg, T. 1899 A, pp. 290, 468.
 Winge, H. 1888 A, p. 135. (Including Sciurini, Castorini.)
 Zittel, K. A. 1893 B, p. 528.

PTEROMYINÆ.

Major, Fors. 1893 A, p. 187.
 Marsh, O. C. 1877 D, p. 253. (Allomyidæ.)

Trouessart, E. L. 1898 A, p. 395.
 Winge, H. 1888 A, p. 115. (Allomyini.)

ALLOMYS Marsh. Type *A. nitens* Marsh.

Marsh, O. C. 1877 D, p. 253.
 Cope, E. D. 1879 D, p. 67. (Meniscomys, type *M. hippodus*.)
 1881 E, p. 365. (Meniscomys.)
 1883 S, p. 51. (Meniscomys.)
 1884 O, p. 826. (Meniscomys.)
 1888 B, p. 291. (Meniscomys=Sciurodon, *Alle* Schlosser.)
 Hay, O. P. 1899 C, p. 253.
 Major, Fors. 1893 A, p. 192.
 Marsh, O. C. 1877 E.
 Nicholson and Lydekker 1889 A, p. 1421. (Meniscomys.)
 Riggs, E. S. 1899 A, p. 183. (Protagonius, type *Meniscomys hippodus*.)
 Schlosser, M. 1884 A, p. 136.
 Winge, H. 1888 A, pp. 114, 164.
 Zittel, K. A. 1893 B, p. 529.

Allomys cavatus (Cope).

Cope, E. D. 1881 E, p. 366. (Meniscomys.)
 1881 Q, p. 586. (Meniscomys.)
 1883 S, p. 52, fig. 7. (Meniscomys.)

Cope, E. D. 1884 O, pp. 827, 830, pl. lxiii, figs. 12-15 (Meniscomys.)
 Major, Fors. 1893 A, p. 192.
 Matthew, W. D. 1899 A, p. 62.
 Roger, O. 1896 A, p. 116.
 Trouessart, E. L. 1898 A, p. 396.
 Miocene (John Day); Oregon.

Allomys hippodus (Cope).

Cope, E. D. 1879 D, p. 67. (Meniscomys.)
 1880 C, p. 55. (Meniscomys.)
 1881 E, p. 366. (Meniscomys.)
 1881 Q, p. 586. (Meniscomys.)
 1883 S, p. 52, fig. 6. (Meniscomys.)
 1884 O, pp. 827, 828, pl. lxii, figs. 7-10 (Meniscomys.)
 Hay, O. P. 1899 C, p. 253.
 Matthew, W. D. 1899 A, p. 62.
 Riggs, E. S. 1899 A, p. 183, text figure, p. 185. (Protagonius.)
 Roger, O. 1896 A, p. 116.
 Trouessart, E. L. 1898 A, p. 396.
 Miocene (John Day); Oregon.

Allomys liolophus (Cope).

- Cope, E. D.* 1881 E, p. 366. (Meniscomys.)
 1881 Q, p. 586. (Meniscomys.)
 1883 S, p. 52, fig. 53. (Meniscomys.)
 1884 O, pp. 827, 829, pl. lxiii, fig. 11. (Meniscomys.)

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 116.

Trouessart, E. L. 1898 A, p. 396.

Miocene (John Day); Oregon.

Allomys multiplicatus (Cope).

- Cope, E. D.* 1879 B, p. 55. (Meniscomys.)
 1879 D, p. 68. (Meniscomys.)
 1883 S, p. 52, fig. 8. (Meniscomys.)
 1884 O, pp. 827, 832. (Syn. of Meniscomys nitens.)

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 116.

Trouessart, E. L. 1898 A, p. 396.

Miocene (John Day); Oregon.

Allomys nitens Marsh.

Marsh, O. C. 1877 D, p. 253.

Cope, E. D. 1881 E, p. 366. (Meniscomys.)

1881 Q, p. 586. (Meniscomys.)

1883 S, p. 52, fig. 8. (Meniscomys.)

1884 O, pp. 827, 832, pl. lxiii, figs. 16, 17. (Meniscomys.)

King, C. 1878 A, p. 424.

Major, Fors. 1893 A, p. 193.

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 116.

Trouessart, E. L. 1898 A, p. 396.

Zittel, K. A. 1893 B, p. 529, fig. 440.

Miocene (John Day); Oregon.

SCIURINÆ.

Baird, S. F. 1857 A, p. 240.

Major, Fors. 1893 A.

Thomas, O. 1896 A, p. 1015.

Trouessart, E. L. 1898 A, p. 403.

Winge, H. 1888 A, pp. 109, 190. (<Sciurini.)

SCIURUS¹ Linn. Type *S. vulgaris* Linn.

Linnaeus, C. 1758, Syst. Nat., ed. 10, i, p. 63.

Allen, J. A. 1877 A, xi, p. 666.

Baird, S. F. 1857 A, p. 243.

Cope, E. D. 1881 E, p. 363.

1883 S, p. 49.

1884 O, p. 816.

Flower and Lydekker 1891 A, p. 450.

Nicholson and Lydekker 1889 A, p. 1421.

Owen, R. 1868 A, p. 299.

Parker, W. K. 1868 A, p. 207, pl. xxv, figs. 12-15.

Tomes, J. 1850 A, p. 535.

Trouessart, E. L. 1898 A, p. 410.

Zittel, K. A. 1893 B, p. 329.

Sciurus ballovianus Cope.

Cope, E. D. 1881 C, p. 177.

1881 E, p. 363.

1881 Q.

1883 S, p. 50, fig. 4, a-d.

1884 O, p. 818, pl. lxiii, figs. 5, 6.

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 117.

Trouessart, E. L. 1898 A, p. 425.

Miocene (John Day); Oregon.

Sciurus calycinus Cope.

Cope, E. D. 1871 I, p. 86.

Allen, J. A. 1877 A, xi, p. 931.

Cope, E. D. 1883 S, p. 373.

1899 A, p. 199.

Roger, O. 1896 A, p. 117.

Trouessart, E. L. 1898 A, p. 425.

Wheatly, C. M. 1871 B.

Pleistocene; Pennsylvania.

Sciurus panolius Cope.

Cope, E. D. 1869 E, p. 174, pl. iii, figs. 5, 5a.

Allen, J. A. 1877 A, xi, p. 932.

Cope, E. D. 1883 S, p. 373.

Ledy, J. 1869 A, p. 404.

Roger, O. 1896 A, p. 117.

Trouessart, E. L. 1898 A, p. 404.

Pleistocene; Virginia.

Sciurus relictus Cope.

Cope, E. D. 1873 CC, p. 8. (Paramys.)

Allen, J. A. 1877 A, xi, p. 932.

Cope, E. D. 1869 J, p. 3. (No description.)

1874 B, p. 475.

1881 E, p. 363.

1881 Q.

1883 S, p. 50, fig. 4, e, f.

1884 O, p. 817, pl. lxv, fig. 35.

Matthew, W. D. 1899 A, p. 52.

Roger, O. 1896 A, p. 117.

Trouessart, E. L. 1898 A, p. 425.

Oligocene (White River); Colorado.

Sciurus vortmani Cope.

Cope, E. D. 1879 E, p. 370.

1881 E, p. 363.

1881 Q.

1883 S, p. 50, fig. 4, g, h.

1884 O, p. 816, pl. lxiii, fig. 4.

Matthew, W. D. 1899 A, pp. 52, 62.

Trouessart, E. L. 1898 A, p. 155.

Miocene (John Day); Oregon, Colorado?

¹Besides the species below recorded, Dr. Ledy has reported (1869 H, p. 5) *S. carolinensis* from a cave in Pennsylvania.

TAMIAS Illiger. Type *Sciurus striatus* Linn.

- Illiger, 1811, Prod. Syst. Mamm., p. 83.
 Allen, J. A. 1877 A, xi, p. 779.
 Baird, S. F. 1857 A, p. 291.
 Flower and Lydekker 1891 A, p. 452.
 Nicholson and Lydekker 1889 A, p. 1421.
 Gomes, J. 1850 A, p. 538.
 Trouessart, E. L. 1898 A, p. 429.
 Winge, H. 1888 A, p. 195.
 Zittel, K. A. 1893 B, p. 530.

Tamias lævidens Cope.

- Cope, E. D. 1869 E, p. 174, pl. iii, fig. 4.
 Allen, J. A. 1877 A, xi, p. 932.
 Cope, E. D. 1883 S, p. 373.
 Leidy, J. 1869 A, p. 404.
 Roger, O. 1896 A, p. 117.
 Trouessart, E. L. 1898 A, p. 433.
 Pleistocene; Virginia.
T. striatus has been reported by Dr. Leidy (1889 H, p. 5.) from a cave in Pennsylvania.

ADJIDAUMO Hay. Type *Gymnoptychus minutus* Cope.

- Hay, O. P. 1899 C, p. 253.
 Cope, E. D. 1874 B, p. 476. (*Gymnoptychus*; not of 1873, the type not the same.)
 1881 E, p. 364. (*Gymnoptychus*.)
 1883 S, p. 50. (*Gymnoptychus*.)
 1884 O, p. 819. (*Gymnoptychus*.)
 1888 B, p. 291. (*Gymnoptychus*.)
 Nicholson and Lydekker 1889 A, p. 1421. (*Gymnoptychus*.)
 Scott, W. B. 1895 E, p. 286. (*Gymnoptychus*.)
 Tullberg, T. 1899 A, p. 480. (*Gymnoptychus*.)
 Zittel, K. A. 1893 B, p. 532. (*Gymnoptychus*.)

Adjidaumo minutus (Cope.)

- Cope, E. D. 1873 T, p. 6. (*Gymnoptychus*.)
 Allen, J. A. 1877 B, p. 945. (*Gymnoptychus minutus*, *G. nasutus*.)
 Cope, E. D. 1873 T, p. 6. (*G. nasutus*.)
 1873 CC, p. 3. (*G. nasutus*, *G. minutus*.)
 1874 B, p. 476. (*G. nasutus*, a syn. of *G. trilophus*.)
 1881 E, p. 364. (*Gymnoptychus*.)
 1881 Q. (*Gymnoptychus*.)

- Cope, E. D. 1883 S, p. 51, fig. 5. (*Gymnoptychus*.)
 1884 O, p. 822, pl. lxxv, figs. 19-30. (*Gymnoptychus*.)

- Hay, O. P. 1899 C, p. 253.
 Matthew, W. D. 1899 A, p. 52. (*Gymnoptychus*.)
 Roger, O. 1896 A, p. 119. (*Gymnoptychus*.)
 Trouessart, E. L. 1898 A, p. 578. (*Gymnoptychus*.)
 Oligocene (White River); Colorado.

Adjidaumo trilophus (Cope.)

- Cope, E. D. 1873 T, p. 6. (*Gymnoptychus*.)
 Allen, J. A. 1877 B, p. 945. (*Gymnoptychus*.)
 Cope, E. D. 1873 CC, p. 3. (*Gymnoptychus*.)
 1874 B, p. 476. (*Gymnoptychus*.)
 1881 E, p. 364. (*Gymnoptychus*.)
 1881 Q. (*Gymnoptychus*.)
 1883 S, p. 51, fig. 5. (*Gymnoptychus*.)
 1884 O, p. 826, pl. lxxv, figs. 31-34. (*Gymnoptychus*.)
 Hay, O. P. 1899 C, p. 253.
 Matthew, W. D. 1899 A, p. 52. (*Gymnoptychus*.)
 Roger, O. 1896 A, p. 120. (*Gymnoptychus*.)
 Oligocene (White River); Colorado.

ARCTOMYS Schreber. Type not designated.

- Schreber, J. C. 1780, Säugeth., iv, p. 721.
 Allen, J. A. 1877 A, xi, p. 909.
 Alston, E. R. 1876 A.
 Baird, S. F. 1857 A, p. 338.
 Blainville, H. M. D. 1864 A, iv, EE, p. 11, plate.
 Cope, E. D. 1869 E, p. 172. (*Stereodectes*, type *S. tortus*.)
 1869 J, p. 3. (*Stereodectes*.)
 Flower and Lydekker 1891 A, p. 454.
 Giebel, C. G. 1859 A.
 Nicholson and Lydekker 1889 A, p. 1420.
 Owen, R. 1866 B, p. 382.
 Palmer, T. S. 1897 A.
 Parker, W. K. 1868 A, p. 207, pl. xxiv, figs. 14-16.
 Tones, J. 1850 A, p. 538.
 Zittel, K. A. 1893 B, p. 529.

Arctomys monax (Linn.)

- Linnaeus, C. 1758, Syst. Nat., ed. 10, i, p. 60. (Mus.)
 Allen, J. A. 1877 A, xi, p. 911.
 Baird, S. F. 1857 A, p. 353, pl. xlix, fig. 1.
 Cope, E. D. 1869 E, p. 173.
 1883 S, p. 373.
 Flower and Lydekker 1891 A, p. 450, fig. 198.
 Giebel, C. G. 1859 A.

- Leidy, J. 1862 A, p. 423.
 1869 A, p. 404.
 1889 H, p. 5.
 Trouessart, E. L. 1898 A, p. 445.
 Zittel, K. A. 1893 B, p. 529, fig. 439.
 Recent; United States to Hudson Bay: Pleistocene; Illinois, Virginia.

Arctomys tortus (Cope.)

- Cope, E. D. 1869 E, p. 172, pl. iii, figs. 3, 3a. (*Stereodectes*.)
 1869 J. (*Stereodectes*.)
 Leidy, J. 1869 A, pp. 404, 446.
 Trouessart, E. L. 1898 A, p. 445. (*A. monax*.)
 Pleistocene; Virginia.

Arctomys vetus Marsh.

- Marsh, O. C. 1871 E, p. 121.
 Allen, J. A. 1877 A, xi, p. 933.
 King, C. 1878 A, p. 430.
 Matthew, W. D. 1899 A, p. 66.
 Roger, O. 1896 A, p. 116.
 Trouessart, E. L. 1898 A, p. 445.
 Miocene (Loup Fork); Nebraska.

MYLAGAULIDÆ.

Cope, E. D. 1881 Q, p. 586.
1881 E, p. 373.

Matthew, W. D. 1899 A, p. 66.
Riggs, E. S. 1899 A, p. 181.

MYLAGAULUS Cope. Type *M. sesquipedalis* Cope.

Cope, E. D. 1878 H, p. 384.
1881 E, p. 373.
1883 S, p. 56.
Nicholson and Lydekker 1889 A, p. 1415.
Riggs, E. S. 1899 A, p. 181.
Zittel, K. A. 1893 B, p. 531.

Mylagaulus monodon Cope.

Cope, E. D. 1881 E, p. 374.
1881 Q, p. 586.
1883 S, p. 56, fig. 12.
Matthew, W. D. 1899 A, p. 66.
Riggs, E. S. 1899 A, p. 184.

Roger, O. 1896 A, p. 119.
Trouessart, E. L. 1898 A, p. 448.
Miocene (Loup Fork); Nebraska, Colorado.

Mylagaulus sesquipedalis Cope.

Cope, E. D. 1878 H, p. 384.
1881 E, p. 375.
1881 Q, p. 586.
1883 S, p. 56, fig. 12.
Matthew, W. D. 1899 A, p. 66.
Roger, O. 1896 A, p. 119.
Trouessart, E. L. 1898 A, p. 448.
Miocene (Loup Fork); Nebraska.

MESOGAULUS Riggs. Type *M. ballensis* Riggs.

Riggs, E. S. 1899 A, p. 181.

Mesogaulus ballensis Riggs.

Riggs, E. S. 1899 A, p. 181, text figures.
Miocene (Deep River); Montana.

CASTORIDÆ.

Allen, J. A. 1877 A, p. 431.
Alston, E. R. 1876 A, p. 78.
Baird, S. F. 1867 A, p. 350. (Castorinæ.)
Brandt, J. F. 1855 A.
Flower and Lydekker 1891 A, p. 457.
Leidy, J. 1871 C, p. 363.
Merriam, J. C. 1896 A, p. 364.
Nicholson and Lydekker 1889 A, p. 1419.

Roger, O. 1896 A, p. 118.
Steinmann and Döderlein 1890 A, p. 733.
Thomas, O. 1896 A, p. 1015.
Trouessart, E. L. 1898 A, p. 447.
Tullberg, T. 1899 A, pp. 306, 472.
Winge, H. 1888 A, p. 137. (Castorini.)
Zittel, K. A. 1893 B, p. 528.

CASTOR Linn. Type *C. fiber* Linn.

Linnaeus, C. 1758, Syst. Nat., ed. 10, i, p. 58.
Allen, J. A. 1877 A, p. 432.
Baird, S. F. 1857 A, p. 355.
Blainville, H. M. D. 1864 A, iv, EE, p. 13, pls. i, ii.
Brandt, J. F. 1855 A.
Cope, E. D. 1881 E, p. 368.
1884 O, p. 838.
1888 I, p. 10.
Flower, W. H. 1885 A.
Flower and Lydekker 1891 A, p. 457.
Nicholson and Lydekker 1889 A, p. 1419.
Owen, R. 1866 B, pp. 364, 374, figs. 230, 240.
Pictet, F. J. 1853 A, p. 250.
Tomes, J. 1850 A, p. 739.
Trouessart, E. L. 1898 A, p. 447.
Wyman, J. 1850 D.
Zittel, K. A. 1893 B, p. 531.

Castor canadensis Kuhl.

Kuhl, H., 1820, Beiträge zur Zool., p. 64.
Allen, J. A. 1877 A, p. 433. (C. fiber.)
Baird, S. F. 1857 A, p. 355, pl. xlviii, fig. 1.

Brandt, J. F. 1855 A, p. 64, pls. i-iii. (C. americanus.)
Cope, E. D. 1869 E, p. 173. (C. fiber.)
1878 H, p. 389. (C. fiber.)
1881 E, p. 370. (C. fiber.)
1884 O, p. 839. (C. fiber.)
1889 F, p. 160. (C. fiber.)
1889 S, p. 960. (C. fiber.)
1899 A, p. 200. (C. fiber.)
Leidy, J. 1860 B, p. 111, pl. xxi, figs. 1, 2.
1869 A, p. 405.
1889 H, p. 5, pl. i, fig. 8. (C. fiber.)
Logan, W. E. 1863 A, p. 914.
Lydekker, R. 1885 B, p. 263.
Roger, O. 1896 A, p. 119.
Trouessart, E. L. 1898 A, p. 447.
Wyman, J. 1850 A, p. 61, fig. 4. (C. fiber americanus.)

Recent; North America. Pleistocene; New York, Pennsylvania, Virginia, Tennessee, New Jersey, South Carolina, Oregon, Ontario, Canada.

EUCASTOR Leidy. Type *E. tortus* Leidy.

- Leidy, J. 1858 E, p. 23. (Subgenus of *Castor*.)
 Allen, J. A. 1877 A, p. 449.
 Cope, E. D. 1881 E, p. 369.
 1883 S, p. 55.
 1884 O, p. 839.
 Flower and Lydekker 1891 A, p. 458.
 Nicholson and Lydekker 1889 A, p. 1419.
 Zittel, K. A. 1893 B, p. 531.

Eucastor tortus Leidy.

- Leidy, J. 1858 E, p. 23. [*Castor* (*Eucastor*).]
 Allen, J. A. 1877 A, p. 449.

- Cope, E. D. 1881 E, p. 369.
 1881 Q, p. 586.
 1883 S, p. 55.
 Hayden, F. V. 1858 B, p. 158.
 Leidy, J. 1869 A, pp. 341, 405, pl. xxvi, figs. 21, 22 (*Castor*).
 1871 C, p. 363. (*Castor*).
 Matthew, W. D. 1899 A, p. 66.
 Merriam, J. C. 1896 A, p. 119.
 Roger, O. 1896 A, p. 119.
 Trouessart, E. L. 1898 A, p. 448.
 Miocene (Loup Fork); Nebraska.

STENOFIBER E. Geoffroy. Type not indicated.

- Geoffroy, E., 1833, Revue Encyclop.
 Cope, E. D. 1877 K, p. 297.
 1881 E, p. 369.
 1884 O, p. 888. (Syn. of *Castor*.)
 Flower and Lydekker 1891 A, p. 458. (*Chalicomys*, *Palaeocastor*.)
 Leidy, J. 1869 A, p. 306. (*Palaeocastor*, type *Stenofiber nebrascensis*).
 1871 C, p. 368. (*Palaeocastor*.)
 Nicholson and Lydekker 1889 A, p. 1420. (*Chalicomys*, *Palaeocastor*.)
 Pictet, F. J. 1858 A, p. 262.
 Pomel, A. 1847 C, p. 381.
 1853 A, p. 20.
 Schlosser, M. 1884 A, p. 21.
 Scott, W. B. 1895 C, p. 76.
 Tullberg, T. 1899 A, p. 474.
 Zittel, K. A. 1893 B, p. 530.

Stenofiber gradatus Cope.

- Cope, E. D. 1879 D, p. 63.
 1879 B, p. 55.
 1881 E, p. 370. (*Castor*.)
 1881 Q, p. 586. (*Castor*.)
 1883 S, p. 55. (*Castor*.)
 1884 O, pp. 839, 844, pl. lxiii, fig. 22. (*Castor*.)
 Matthew, W. D. 1899 A, p. 62.
 Roger, O. 1896 A, p. 118.
 Trouessart, E. L. 1898 A, p. 449.
 Miocene (John Day); Oregon.

Stenofiber montanus Scott.

- Scott, W. B. 1893 B, p. 680.
 Matthew, W. D. 1899 A, p. 52.
 Roger, O. 1896 A, p. 119.
 Scott, W. B. 1895 C, p. 76.
 Trouessart, E. L. 1898 A, p. 450.
 Oligocene (White River); Montana.

Stenofiber nebrascensis Leidy.

- Leidy, J. 1856 I, p. 89.
 Allen, J. A. 1877 A, p. 451.

- Cope, E. D. 1877 K, pp. 297, 300.
 1881 E, p. 370. (*Castor*.)
 1881 Q, p. 586. (*Castor*.)
 1883 S, p. 55. (*Castor*.)
 1884 O, p. 839. (*Castor*.)
 Hayden, F. V. 1858 B, p. 158.
 King, C. 1878 A, p. 412. (*Palaeocastor*.)
 Leidy, J. 1857 D, p. 176. (*Chalicomys*.)
 1869 A, pp. 338, 406, pl. xxvi, figs. 7-11. (*Palaeocastor*.)
 1871 C, p. 363. (*Palaeocastor*.)
 Matthew, W. D. 1899 A, p. 62.
 Roger, O. 1896 A, p. 118.
 Trouessart, E. L. 1898 A, p. 449.
 Oligocene (White River); South Dakota, Nebraska, North Dakota.

Stenofiber pansus Cope.

- Cope, E. D. 1874 J, p. 222.
 Allen, J. A. 1877 A, p. 453.
 Cope, E. D. 1875 F, p. 73.
 1877 K, p. 297, pl. lxix, figs. 4-14.
 1881 E, p. 370.
 1881 K. (*Castor*.)
 1883 S, p. 55, fig. 11. (*Castor*.)
 1884 O, pp. 839, 840. (*Castor*.)
 Matthew, W. D. 1899 A, p. 66.
 Roger, O. 1896 A, p. 118.
 Trouessart, E. L. 1898 A, p. 449.
 Miocene (Loup Fork); New Mexico, Nebraska.

Stenofiber peninsulatus (Cope).

- Cope, E. D. 1881 E, p. 370. (*Castor*.)
 1879 B, p. 55. (*Stenofiber nebrascensis*.)
 1881 Q, p. 586. (*Castor*.)
 1883 S, p. 55, figs. 9, 10. (*Castor*.)
 1884 O, p. 840, pl. lxiii, figs. 18-21. (*Castor*.)
 Matthew, W. D. 1899 A, p. 62.
 Roger, O. 1896 A, p. 118.
 Trouessart, E. L. 1898 A, p. 449.
 Miocene (John Day); Oregon.

SIGMOGOMPHIUS Merriam. Type *S. lecontei* Merriam.

Merriam, J. C. 1896 A.

Sigmogomphius lecontei Merriam.

Merriam, J. C. 1896 A, figs. 1, 2.

- Matthew, W. D. 1899 A, p. 66.
 Trouessart, E. L. 1898 A, p. 450.
 Pliocene; California.

ISCHYROMYIDÆ.

- Alston*, E. R. 1876 A, p. 78.
Allen, J. A. 1877 B, p. 944.
Cope, E. D. 1881 E, p. 368.
 1884 O, pp. 37, 834 (Protomyidæ); p. 835
 (Ischyromyidæ).
Nicholson and Lydekker 1889 A, p. 1420.

- Roger*, O. 1896 A, p. 110.
Trouessart, E. L. 1898 A, p. 451.
Tullberg, T. 1899 A, p. 468.
Winge, H. 1888 A, p. 114.
Zittel, K. A. 1893 B, p. 521.

PARAMYS Leidy. Based on three species, *P. delicatus*, *delicator*, *delicatisimus*.

Leidy, J. 1871 L, p. 231.

As the species here included in *Paramys* have, by Cope and others, been referred to the genus *Plesiarctomys*, citations are given to the literature of the latter genus also.

Allen, J. A. 1877 A, xi, p. 933 (*Paramys*); p. 935 (*Sciuravus*).

1877 B, p. 946. (*Pseudotomus*.)

Alston, E. R. 1876 A, p. 78. (*Pseudotomus*.)

Cope, E. D. 1872 N, p. 467. (*Pseudotomus*, type *P. hians*.)

1873 E, p. 610. (*Pseudotomus*.)

1877 K, p. 170. (*Plesiarctomys*.)

1883 S, p. 45. (*Plesiarctomys*.)

1884 O, p. 175. (*Plesiarctomys*.)

Flower and Lydekker 1891 A, p. 457. (*Plesiarctomys*.)

Leidy, J. 1871 L, p. 230 (*Sciuravus*); p. 231 (*Paramys*).

1872 B, p. 357.

1873 B, pp. 109, 335 (*Paramys*); p. 113 (*Sciuravus*).

Major, Fors. 1893 A, p. 202. (*Plesiarctomys*.)

Marsh, O. C. 1871 E, p. 122. (*Sciuravus*, type *S. nittidus*.)

1873 G, p. 246. (*Sciuravus*.)

Matthew, W. D. 1897 C, p. 266. (*Plesiarctomys*.)

Nicholson and Lydekker 1889 A, p. 1420. (*Plesiarctomys*, *Paramys*.)

Osborn, H. F. 1896 A, p. 81.

Osborn, *Scott*, and *Speir* 1878 A, p. 83.

Scott, W. B. 1890 A, p. 474. (*Plesiarctomys*.)

1892 A, p. 426.

Trouessart, E. L. 1898 A, p. 451.

Winge, H. 1888 A, pp. 114, 164.

Zittel, K. A. 1893 B, p. 521 (*Paramys*); p. 528 (*Plesiarctomys*.)

Paramys buccatus (Cope).

Cope, E. D. 1877 K, p. 171, pl. lxiv, fig. 8. (*Plesiarctomys*.)

1881 D, p. 184. (*Plesiarctomys*.)

1882 E, p. 146. (*Plesiarctomys*.)

1883 S, p. 47. (*Plesiarctomys*.)

1884 O, p. 179, pl. xlixa, fig. 14. (*Plesiarctomys*.)

Matthew, W. D. 1899 A, p. 30, 39.

Roger, O. 1896 A, p. 110.

Trouessart, E. L. 1898 A, p. 451.

Eocene (Wasatch); New Mexico, Wyoming: (Bridger); Wyoming.

Paramys delicatior Leidy.

Leidy, J. 1871 L, p. 231.

Allen, J. A. 1877 A, xi, p. 934.

Cope, E. D. 1873 E, p. 610.

1873 U, p. 4.

1877 K, p. 172, pl. xlv, figs. 10, 11. (*Plesiarctomys*.)

1881 D, p. 184. (*Plesiarctomys*.)

1882 E, p. 146. (*Plesiarctomys*.)

1883 S, p. 47. (*Plesiarctomys*.)

1884 O, p. 182, pl. xxiva, figs. 11-13. (*Plesiarctomys*.)

Leidy, J. 1872 B, p. 357.

1873 B, pp. 110, 335, pl. vi, figs. 26, 27; pl. xxvii, figs. 16-18.

Matthew, W. D. 1899 A, pp. 30, 35, 38.

Osborn, H. F. 1897 G, p. 256. (*Plesiarctomys delicatior*.)

Roger, O. 1896 A, p. 110.

Trouessart, E. L. 1898 A, p. 451.

Eocene (Wind River, Bridger); Wyoming (Wasatch); New Mexico, Wyoming.

Paramys delicatissimus Leidy.

Leidy, J. 1871 L, p. 231.

Allen, J. A. 1877 A, xi, p. 935.

Cope, E. D. 1873 E, p. 610.

1873 U, p. 4.

1877 K, p. 172, pl. xxiv, figs. 9, 12. (*Plesiarctomys*.)

1881 D, p. 184. (*Plesiarctomys*.)

1883 S, p. 47, figs. 1, 2. (*Plesiarctomys*.)

1884 O, p. 179, pl. xxiva, figs. 1-10. (*Plesiarctomys*.)

Leidy, J. 1872 B, p. 357.

1873 B, pp. 111, 335, pl. vi, figs. 28, 29.

Matthew, W. D. 1899 A, pp. 30, 34, 39.

Roger, O. 1896 A, p. 110.

Trouessart, E. L. 1898 A, p. 451.

Zittel, K. A. 1893 B, p. 522, fig. 430.

Eocene (Bridger); Wyoming: (Wasatch?); New Mexico, Wyoming.

Paramys delicatus Leidy.

Leidy, J. 1871 L, p. 231.

Allen, J. A. 1877 A, xi, p. 934.

Cope, E. D. 1873 E, p. 610.

1873 U, p. 4.

King, C. 1878 A, p. 404.

Leidy, J. 1872 B, p. 357.

1873 B, pp. 110, 335, pl. vi, figs. 23-25.

Matthew, W. D. 1899 A, p. 38.

Roger, O. 1896 A, p. 110.

Trouessart, E. L. 1898 A, p. 451.

Eocene (Bridger); Wyoming.

Paramys hians (Cope.)

Cope, E. D. 1872 N, p. 467. (*Pseudotomus*.)

Allen, J. A. 1877 B, p. 946. (*Pseudotomus*.)

Cope, E. D. 1873 E, p. 611. (*Pseudotomus*)
1883 S, p. 47. (*Plesiarctomys*)
1884 O, p. 183, pl. xxiv, figs. 3-6. (*Plesiarctomys*).

Matthew, W. D. 1899 A, p. 39.
Roger, O. 1896 A, p. 110.
Trouessart, E. L. 1898 A, p. 451.
Eocene (Bridger); Wyoming.

Paramys leptodus Cope.

Cope, E. D. 1873 U, p. 3.
Allen, J. A. 1877 A, xi, p. 934.
Cope, E. D. 1873 E, p. 609.
1883 S, p. 47. (*Plesiarctomys*)
1884 O, p. 183, pl. xxiv, fig. 1. (*Plesiarctomys*).

Matthew, W. D. 1899 A, p. 39.
Roger, O. 1896 A, p. 111.
Trouessart, E. L. 1898 A, p. 451.
Eocene (Bridger); Wyoming.

Paramys nitidus (Marsh.)

Marsh, O. C. 1871 E, p. 122. (*Sciuravus*)
Allen, J. A. 1877 A, xi, p. 935.
King, C. 1878 A, p. 404.
Leidy, J. 1872 B, p. 358. (*Sciuravus*)
1873 B, p. 113. (*Sciuravus*)

Matthew, W. D. 1899 A, p. 39.
Roger, O. 1896 A, p. 111.
Trouessart, E. L. 1898 A, p. 451.
Eocene (Bridger); Wyoming.

Paramys parvidens (Marsh.)

Marsh, O. C. 1872 I, p. 220. (*Sciuravus*)
Allen, J. A. 1877 A, xi, p. 936. (*Sciuravus*)
Matthew, W. D. 1899 A, p. 39.
Roger, O. 1896 A, p. 111.
Trouessart, E. L. 1898 A, p. 451.
Eocene (Bridger); Wyoming.

Paramys robustus Marsh.

Marsh, O. C. 1872 I, p. 218.
Allen, J. A. 1877 A, xi, p. 934.
Matthew, W. D. 1899 A, p. 39.
Osborn, H. F. 1896 A, p. 81.

TILLOMYS Marsh. Type *T. senex* Marsh.

Marsh, O. C. 1872 I, p. 219.
Allen, J. A. 1877 A, xi, p. 938.
Nicholson and Lydekker 1899 A, p. 1420.
(= ? *Ischyromys*)
Schlosser, M. 1894 A, p. 130. (= ? *Ischyromys*)
Zittel, K. A. 1893 B, p. 522.

Tillomys parvus Marsh.

Marsh, O. C. 1872 I, p. 219.
Allen, J. A. 1877 A, xi, p. 939.
Matthew, W. D. 1899 A, p. 39.
Roger, O. 1896 A, p. 111.

TAXYMS Marsh. Type *T. lucaris* Marsh.

Marsh, O. C. 1872 I, p. 219.
Allen, J. A. 1877 A, xi, p. 938.
Marsh, O. C. 1890 H, p. 10. (*Tachymys*)
Zittel, K. A. 1893 B, p. 522. (*Toxymys*)

Taxymys lucaris Marsh.

Marsh, O. C. 1872 I, p. 219.

Roger, O. 1896 A, p. 111.
Trouessart, E. L. 1898 A, p. 451.
Eocene (Bridger); Wyoming.

Paramys sciuroides (Scott and Osb.).

Scott and Osborn 1887 A, p. 256. (*Plesiarctomys*)
Major, For. 1896 A, p. 202. (*Plesiarctomys*)
Matthew, W. D. 1899 A, p. 49.
Scott and Osborn 1890 A, p. 475, pl. xi, figs. 1, 2, text fig. 1. (*Plesiarctomys*)
Roger, O. 1896 A, p. 111.
Trouessart, E. L. 1898 A, p. 451.
Zittel, K. A. 1893 B, p. 522, fig. 429.
Eocene (Uinta); Utah.

Paramys superbus Osb., Scott, and Speir.

Osborn, Scott, and Speir 1878 A, p. 84.
Eocene (Bridger); Wyoming.

Paramys uintensis Osborn.

Osborn, H. F. 1896 A, p. 81.
Matthew, W. D. 1899 A, p. 49.
Roger, O. 1896 A, p. 111.
Trouessart, E. L. 1898 A, p. 451.
Eocene (Uinta); Utah.

Paramys undans (Marsh.)

Marsh, O. C. 1871 E, p. 122. (*Sciuravus*)
Allen, J. A. 1877 A, xi, p. 935. (*Sciuravus*)
Cope, E. D. 1873 E, p. 610.
1873 U, p. 4.
1883 S, p. 47. (*Plesiarctomys*)

Leidy, J. 1872 B, p. 358. (*Sciuravus*)
1873 B, p. 113. (*Sciuravus*)
Matthew, W. D. 1899 A, p. 39.
Roger, O. 1896 A, p. 111.
Trouessart, E. L. 1898 A, p. 451.
Eocene (Bridger); Wyoming.

Paramys sp. indet.

Leidy, J. 1873 B, pp. 113, 335, pl. vi, fig. 38. (*Sciuravus*)
Allen, J. A. 1877 A, xi, p. 936.
Eocene (Bridger); Wyoming.

Trouessart, E. L. 1898 A, p. 451.
Eocene (Bridger); Wyoming.

Tillomys senex Marsh.

Marsh, O. C. 1872 I, p. 219.
Allen, J. A. 1877 A, xi, p. 938.
King, C. 1878 A, p. 404.
Matthew, W. D. 1899 A, p. 39.
Roger, O. 1896 A, p. 111.
Trouessart, E. L. 1898 A, p. 451.
Eocene (Bridger); Wyoming.

Allen, J. A. 1877 A, xi, p. 938.
King, C. 1878 A, p. 404.
Matthew, W. D. 1899 A, p. 39.
Roger, O. 1896 A, p. 111.
Trouessart, E. L. 1898 A, p. 452.
Eocene (Bridger); Wyoming.

COLONYMYS Marsh. Type *C. celer* Marsh.

- Marsh, O. C. 1872 I, p. 220.
 Allen, J. A. 1877 A, xi, p. 938.
 Marsh, O. C. 1878 G, p. 246.
 Matthew, W. D. 1899 A, p. 89. (Colonomys.)
 Nicholson and Lydekker 1899 A, p. 1419.
 Zittel, K. A. 1893 B, p. 522.

Colonomys celer Marsh.

- Marsh, O. C. 1872 I, p. 220.
 Allen, J. A. 1877 A, xi, p. 938.
 Matthew, W. D. 1899 A, p. 89.
 Roger, O. 1896 A, p. 111.
 Trouessart, E. L. 1898 A, p. 452.
 Eocene (Green River); Wyoming.

APATEMYS Marsh. Type *A. bellus* Marsh.

- Marsh, O. C. 1872 I, p. 221.
 1877 E.
 A genus of uncertain position.

Apatemys bellulus Marsh.

- Marsh, O. C. 1872 I, p. 221.
 Matthew, W. D. 1899 A, p. 89.
 Roger, O. 1896 A, p. 89.
 Trouessart, E. L. 1898 A, p. 669.
 Eocene (Bridger); Wyoming.

Apatemys bellus Marsh.

- Marsh, O. C. 1872 I, p. 221.
 King, C. 1878 A, p. 404.
 Matthew, W. D. 1899 A, p. 89.
 Roger, O. 1896 A, p. 89.
 Trouessart, E. L. 1898 A, p. 669.
 Eocene (Bridger); Wyoming.

ISCHYROMYS Leidy. Type *I. typus* Leidy.

- Leidy, J. 1856 I, p. 89.
 Allen, J. A. 1877 B, p. 944 (Ischyromys); p. 945 (Gymnoptychus).
 Cope, E. D. 1873 S, p. 1. (Colotaxis, type *C. cristatus*=*I. typus*.)
 1873 T, p. 5. (Gymnoptychus, type *G. chrysodon*=*I. typus*.)
 1874 B, p. 477.
 1881 E, p. 366.
 1883 S, p. 47.
 1884 O, p. 833.
 1888 B, p. 291. (=Sciurumys, *Ade* Schlosser.)
 Hay, O. P. 1899 C, p. 258.
 Leidy, J. 1871 C, p. 563.
 Nicholson and Lydekker 1899 A, p. 1420.
 Schlosser, M. 1884 A, p. 130.
 Trouessart, E. L. 1898 A, p. 452.
 Tullberg, T. 1899 A, p. 464.
 Winge, H. 1888 A, pp. 115, 164.
 Zittel, K. A. 1893 B, p. 522.

Ischyromys typus Leidy.

- Leidy, J. 1856 I, p. 89.
 Allen, J. A. 1877 A, xi, p. 931. (Gymnoptychus chrysodon.)

- Allen, J. A. 1877 B, p. 944 (*I. typus*); p. 945 (Gymnoptychus chrysodon); p. 948 (Colotaxis cristatus).
 Cope, E. D. 1873 S, p. 1. (Colotaxis cristatus.)
 1873 T, p. 5. (Gymnoptychus chrysodon.)
 1873 CC, p. 3. (Colotaxis cristatus.)
 1874 B, p. 477.
 1881 Q.
 1883 S, p. 47, fig. 3.
 1884 O, p. 835, pl. lxxvii, figs. 1-12.
 1888 I, p. 8, fig. 5.
 1889 C, p. 267, fig. 88.
 Hay, O. P. 1899 C, p. 258.
 Hayden, F. V. 1858 B, p. 158.
 King, C. 1878 A, p. 412.
 Leidy, J. 1869 A, pp. 335, 405, pl. xxvi, figs. 1-6.
 1871 C, p. 363.
 Matthew, W. D. 1899 A, p. 52.
 Roger, O. 1896 A, p. 111.
 Schlosser, M. 1884 A, p. 136.
 Trouessart, E. L. 1898 A, p. 452.
 Tullberg, T. 1899 A, p. 463.
 Zittel, K. A. 1893 B, p. 522, fig. 431.
 Oligocene (White River); South Dakota, Nebraska, Colorado.

MYSOPS Leidy. Type *M. minimus* Leidy.

- Leidy, J. 1871 L, p. 232.
 Allen, J. A. 1877 A, xi, p. 936.
 Cope, E. D. 1883 S, p. 47. (Syllophodus; no type indicated.)
 1884 O, p. 846. (Syllophodus.)
 Flower and Lydekker 1891 A, p. 484.
 Leidy, J. 1873 B, p. 111.
 Nicholson and Lydekker 1899 A, p. 1416 (Syllophodus); p. 1420 (Mysops).
 Zittel, K. A. 1893 B, p. 523.

Mysops fraternus Leidy.

- Leidy, J. 1873 B, pp. 112, 336, pl. xxvii, figs. 14, 15.
 Allen, J. A. 1877 A, xi, p. 937.
 Cope, E. D. 1883 S, p. 47. (Syllophodus.)
 Matthew, W. D. 1899 A, p. 39.

- Roger, O. 1896 A, p. 111.
 Trouessart, E. L. 1898 A, p. 452.
 Eocene (Bridger); Wyoming.

Mysops minimus Leidy.

- Leidy, J. 1871 L, p. 232.
 Allen, J. A. 1877 A, p. 937. (*M. minutus*.)
 Cope, E. D. 1883 S, p. 47. (Syllophodus.)
 King, C. 1878 A, p. 404.
 Leidy, J. 1872 B, p. 357.
 1873 B, pp. 111, 336, pl. vi, figs. 31, 32.
 Matthew W. D. 1899 A, p. 39.
 Roger, O. 1896 A, p. 111.
 Trouessart, E. L. 1898 A, p. 452.
 Eocene (Bridger); Wyoming.

Superfamily MYOMORPHA Brandt.

- Brandt, J. F. 1855 A.
 Alston, E. R. 1876 A.
 Cope, E. D. 1881 E, p. 361.
 1888 S, p. 43.
 1894 O, p. 812.
 1899 P, p. 659.
 Flower and Lydekker 1891 A, p. 459.
 Gadow, H. 1898 A, p. 43.
 Haeckel, E. 1895 A, p. 510.
 Lydekker, R. 1896 B.
- Nicholson and Lydekker 1899 A, p. 1416.
 Roger, O. 1896 A, p. 120.
 Schlosser, M. 1884 A, p. 98.
 Slade, D. D. 1888 A.
 1892 B.
 Thomas, O. 1896 A, p. 1016.
 Trouessart, E. L. 1898 A, p. 453.
 Tullberg, T. 1899 A, pp. 151, 386. (Myomorphi.)
 Zittel, K. A. 1893 B, p. 533.

MURIDÆ.

- Adloff, P. 1898 A. ("Muriden.")
 Alston, E. R. 1876 A, p. 80.
 Baird, S. F. 1857 A, p. 427.
 Burmeister, H. 1879 B, p. 197. (Murini.)
 Coues, E. 1877 B, i, p. 1.
 Flower, W. H. 1883 D, p. 418.
 Flower and Lydekker 1891 A, p. 461.
 Nicholson and Lydekker 1889 A, p. 1416.
- Parker, W. K. 1868 A, p. 207.
 Thomas, O. 1896 A, p. 1017.
 Tomes, J. 1850 A, p. 542.
 Trouessart, E. L. 1898 A, p. 458.
 Tullberg, T. 1899 A, pp. 242, 432 (Hesperomyidae:
 pp. 251, 445 (Muridae)).
 Winge, H. 1888 A, p. 123.
 Zittel, K. A. 1893 B, p. 537.

CRICETINÆ.

- Baird, S. F. 1857 A, p. 445. (Sigmodontes.)
 Coues, E. 1877 B, i, p. 7. (Sigmodontes, in part.)
 Flower and Lydekker 1891 A, p. 463.
 Merriam, C. H. 1894 A, p. 226.
 Nehring, A. 1893 A. (Genus Cricetus.)
 Palmer, T. S. 1897 A.
- Roger, O. 1896 A, p. 120. (Cricetidae.)
 Thomas, O. 1888 B, p. 132. (Criceti.)
 1896 A, p. 1019. (Sigmodontinae.)
 Trouessart, E. L. 1898 A, pp. 505, 511.
 Tullberg, T. 1899 A, pp. 219, 430.
 Zittel, K. A. 1893 B, p. 534. (Cricetidae.)

EUMYS Leidy. Type *E. elegans* Leidy.

- Leidy, J. 1856 I, p. 90.
 Cope, E. D. 1874 B, p. 474.
 1877 K, p. 300.
 1881 E, p. 376.
 1888 S, p. 165.
 1884 O, p. 848.
 Leidy, J. 1871 C, p. 364.
 Lydekker, R. 1887 A, p. 322.
 Nicholson and Lydekker 1889 A, p. 1418.
 Zittel, K. A. 1893 B, p. 535.
- Eumys elegans** Leidy.
 Leidy, J. 1856 I, p. 90.
 Allen, J. A. 1877 B, p. 946.
 Cope, E. D. 1874 B, p. 474.
- Cope, E. D. 1881 E, p. 376.
 1881 Q.
 1883 S, p. 165, figs. 13, 14.
 1894 O, p. 849, pl. lxxv, figs. 1-14.
 Hayden, F. V. 1858 B, p. 158.
 King, C. 1878 A, p. 412.
 Leidy, J. 1869 A, pp. 342, 407, pl. xxvi, figs. 12, 13.
 1871 C, p. 364.
 Lydekker, R. 1887 A, p. 322.
 Matthew, W. D. 1899 A, p. 53.
 Roger, O. 1896 A, p. 121.
 Trouessart, E. L. 1898 A, p. 511.
 Zittel, K. A. 1893 B, p. 535, fig. 448.
 Oligocene (White River); South Dakota,
 Colorado, Nebraska.

PEROMYSCUS Gloger. Type *P. arboreus* Gloger.

- Unless otherwise indicated the following authorities call this genus *Hesperomys*.
 Alston, E. R. 1876 A, p. 84.
 Baird, S. F. 1857 A, p. 453.
 Burmeister, H. 1879 B, p. 205.
 Cope, E. D. 1881 E, p. 376.
 1884 O, p. 852.
 Coues, E. 1877 B, i, p. 43 (Hesperomys); p. 45 (Subg. *Vesperimus*).
 Flower and Lydekker 1891 A, p. 463. (Cricetus.)
 Lydekker, R. 1885 B, p. 229.
 Nicholson and Lydekker 1889 A, p. 1418.
 Parker, W. K. 1868 A, p. 207, pl. xxv, figs. 6, 7. (Cricetus.)
- Thomas, O. 1888 B, p. 133. (Cricetus.)
 1896 A, p. 1019.
 Zittel, K. A. 1893 B, p. 535.
- Peromyscus leucopus** (Raf.).
 Baird, S. F. 1857 A, p. 459. (Hesperomya.)
 Cope, E. D. 1869 E, p. 173. (Hesperomya.)
 1871 I, p. 87. (Hesperomya.)
 1881 E, p. 377. (Hesperomya.)
 1899 A, p. 201. (Hesperomys leucopus?)
 Coues, E. 1877 B, i, p. 50, pl. iii, figs. 18-21. [Hesperomys (*Vesperimus*).]
 Leidy, J. 1889 H, p. 6. (Hesperomya.)
 Roger, O. 1896 A, p. 122. (*Vesperomya*.)

Trouessart, E. L. 1898 A, p. 512.
 Wheatley, C. M. 1871 B. (Hesperomys.)
 Zittel, K. A. 1893 B, p. 535. (Vesperomys leucopus fossilis.)

Recent; eastern United States from Carolinas to New York. Pleistocene?; caves of Virginia and Pennsylvania, with doubts as to identifications.

Peromyscus loxodon (Cope).

Cope, E. D. 1874 I, p. 148. (Hesperomys.)
 Allen, J. A. 1877 B, p. 946. (Eumys.)
 Cope, E. D. 1874 O, p. 17. (Hesperomys.)
 1875 F, p. 73. (Eumys.)
 1877 K, p. 300, pl. lxix, fig. 15. (Eumys.)
 1881 E, p. 376. (Hesperomys.)
 1881 Q. (Hesperomys.)

Cope, E. D. 1883 S, p. 165. (Hesperomys.)
 Matthew, W. D. 1899 A, p. 66.
 Roger, O. 1896 A, p. 122. (Hesperomys.)
 Trouessart, E. L. 1898 A, p. 512.
 Miocene (Loup Fork); New Mexico.

Peromyscus nematodon (Cope).

Cope, E. D. 1879 E, p. 370. (Hesperomys.)
 1881 C, p. 176. (Eumys.)
 1881 Q. (Hesperomys.)
 1883 S, p. 165, fig. 15. (Hesperomys.)
 1884 O, p. 852, pl. lxvi, fig. 33. (Hesperomys.)
 Matthew, W. D. 1899 A, p. 62. (Hesperomys.)
 Roger, O. 1896 A, p. 122. (Hesperomys.)
 Trouessart, E. L. 1898 A, p. 512.
 Miocene (John Day); Oregon.

PACICULUS Cope. Type *P. insolitus* Cope.

Cope, E. D. 1879 E, p. 370.
 1881 E, p. 377.
 1883 S, p. 166.
 1884 O, p. 853.
 Nicholson and Lydekker 1889 A, p. 540.
 Scott, W. B. 1895 D.
 1895 E, p. 286.
 Zittel, K. A. 1893 B, p. 536.

Pacculus insolitus Cope.

Cope, E. D. 1879 E, p. 371.
 1881 E, p. 377.
 1881 Q.
 1883 S, p. 166, fig. 15.
 1884 O, p. 854, pl. lxvi, figs. 31, 32.

Matthew, W. D. 1899 A, p. 62.
 Roger, O. 1896 A, p. 124.
 Trouessart, E. L. 1898 A, p. 540.
 Miocene (John Day); Oregon.

Pacculus lockingtonianus Cope.

Cope, E. D. 1881 C, p. 176. (Eumys.)
 1881 E, p. 377.
 1881 Q.
 1883 S, p. 166.
 1884 O, p. 854, pl. lxiv, fig. 10.
 Matthew, W. D. 1899 A, p. 62.
 Roger, O. 1896 A, p. 124.
 Trouessart, E. L. 1898 A, p. 540.
 Miocene (John Day); Oregon.

NEOTOMINÆ.

Merriam, C. H. 1894 A, p. 228.
 Baird, S. F. 1857 A, p. 445. (Sigmodontes, in part.)
 Coues, E. 1877 B, i, p. 7. (Sigmodontes, in part.)

Thomas, O. 1896 A, p. 1020.
 Trouessart, E. L. 1898 A, p. 540.

NEOTOMA Say and Ord. Type *N. floridana* Say and Ord.

Say and Ord, 1825, Jour. Acad. Nat. Sci., Phila., iv, pp. 345, 346.
 Alston, E. R. 1876 A, p. 85.
 Baird, S. F. 1857 A, p. 486.
 Coues, E. 1877 B, i, p. 7.
 Flower and Lydekker 1891 A, p. 464.
 Merriam, C. H. 1894 A, p. 239.
 Nicholson and Lydekker 1889 A, p. 1418.
 Trouessart, E. L. 1898 A, p. 541.
 Zittel, K. A. 1893 B, p. 536.

Neotoma floridana Say and Ord.

Say and Ord, 1818, Bull. Soc. Philom., Paris, p. 181.
 Baird, S. F. 1857 A, p. 487, pl. liii, fig. 2.
 Coues, E. 1877 B, i, p. 14, pl. i, figs. 1-4.
 Leidy, J. 1869 A, p. 407.
 1880 A, p. 347.
 1889 H, p. 6.
 Merriam, C. H. 1894 A, p. 244.
 Rhoads, S. N. 1894 A, p. 346.
 Roger, O. 1896 A, p. 124.

Say and Ord, 1825, Jour. Acad. Nat. Sci., Phila., iv, p. 346, pls. xxi, xxii.
 Trouessart, E. L. 1898 A, p. 541.
 Recent; southeastern United States. Pleistocene?; Pennsylvania?

Neotoma magister Baird.

Baird, S. F. 1857 A, p. 498, pl. liii, fig. 4; pl. liv, fig. 978.
 Cope, E. D. 1869 E, p. 173. (N. magister, N. floridana?)
 1883 S, p. 373.
 Coues, E. 1877 B, i, p. 29, pl. ii, fig. 13.
 Leidy, J. 1869 A, p. 407.
 1880 A, p. 347.
 Mercer, H. C. 1897 A.
 Merriam, C. H. 1894 A, p. 244.
 Rhoads, S. N. 1894 A, p. 213.
 Roger, O. 1896 A, p. 124.
 Trouessart, E. L. 1898 A, p. 542.
 Pleistocene; Pennsylvania, Virginia, Kentucky, Missouri.

MICROTINÆ.

- Alston, E. R. 1876 A, p. 85. (Arvicolinæ.)
 Baird, S. F. 1857 A, p. 506. (Arvicolinæ.)
 Blackmore, H. P. 1874 A. (Arvicolidæ.)
 Brandt, J. F. 1885 A. (Arvicolini.)
 Coues, E. 1877 B, I, p. 131. (Arvicolinæ.)
 Flower, W. H. 1883 D, p. 419. (Arvicolinæ.)
 Flower and Lydekker 1891 A, p. 465.
 Lataste, F., 1883, *Le Nat.*, II, pp. 323, 332, 343, 347.
 (Arvicolinæ.)
 1884, *Ann. Mus. Civic. Genova*, xx, p. 255.
 (Arvicolinæ.)

- Merriam, C. H. 1894 A, p. 227. (Arvicolinæ.)
 Miller, G. S. 1896 A, p. 8.
 Nehring, A. 1875 A.
 Roger, O. 1896 A, p. 124. (Arvicolidæ.)
 Thomas, O. 1896 A, p. 1020.
 Trouessart, E. L. 1898 A, p. 545.
 Tullberg, T. 1899 A, pp. 227, 430. (Arvicolidæ.)
 Zittel, K. A. 1893 B, p. 536. (Arvicolidæ.)

ANAPTOGONIA Cope. Type *A. hiatidens* Cope.

- Cope, E. D. 1871 I, p. 91. [Arvicola (Anapto-
 gonina).]
 1883 S, p. 373. [Arvicola (Anapto-
 gonina).]
 1896 F, p. 379.
 1899 A, p. 201.
 Miller, G. S. 1896 A, p. 74. [Microtus (Anapto-
 gonina).]
 Trouessart, E. L. 1898 A, p. 551. (Anapto-
 gonina.)

Anapto-*gonia* cloacina Cope.

- Cope, E. D. 1896 A, p. 380.
 Trouessart, E. L. 1898 A, p. 551.
 Pleistocene; Pennsylvania.

Anapto-*gonia* hiatidens Cope.

- Cope, E. D. 1871 I, p. 91, fig. 18. [Arvicola (An-
 aptogonia).]

- Allen, J. A. 1877 B, p. 947. [Arvicola (Anapto-
 gonina).]
 Cope, E. D. 1883 S, p. 373, fig. 24, no. 18. [Arvicola
 (Anapto-
 gonina).]
 1896 F, p. 379.
 1899 A, p. 201 (*A. hiatidens*); p. 206 (*Schis-
 todelta sulcata*¹).
 Miller, G. S. 1896 A, p. 74. [Microtus (Anapto-
 gonina).]
 Roger, O. 1896 A, p. 125. (Arvicola.)
 Trouessart, E. L. 1898 A, p. 551.
 Wheatley, C. M. 1871 B.
 Pleistocene; Pennsylvania.

SYCIUM Cope. Type *S. cloacinum* Cope.

- Cope, E. D. 1899 A, p. 203.

| **Sycium cloacinum** Cope.

- Cope, E. D. 1899 A, p. 203, text figure, p. 204.
 Pleistocene; Pennsylvania.

MICROTUS Schrank. Type *M. arvalis* (Pall.).

- Schrank, F. 1798, *Fauna Boica*, I, p. 72.
 Unless otherwise indicated, the following
 authors refer to this genus under the name
Arvicola Lacépède, 1801.
 Alston, E. R. 1876 A, p. 85.
 Baird, S. F. 1857 A, p. 509.
 Blackmore, H. P. 1874 A.
 Cope, E. D. 1871 I, p. 87. (*Isodelta*, subgenus,
 type *Arvicola speotheni*.)
 1896 F, p. 379. (*Microtus*.)
 1899 A, pp. 201, 204. (*Microtus*.)
 Coues, E. 1877 B, I, p. 149.
 Flower and Lydekker 1891 A, p. 466.
 Lydekker, R. 1885 B, p. 230.
 Miller, G. S. 1896 A, pp. 15, 44 (*Microtus*); p. 58
 (subgenus *Pitymys*).
 Nehring, A. 1875 A.
 Owen, R. 1868 A, p. 298.
 Parker, W. K. 1868 A, p. 208, pl. xxiv, figs. 9-13.
 Scott, W. B. 1892 A, p. 407.
 Thomas, O. 1896 A, p. 1021.
 Tomes, J. 1850 A, p. 550.
 Trouessart, E. L. 1898 A, p. 552. (*Microtus*.)
 Zittel, K. A. 1893 B, p. 536.

Microtus didelta Cope.

- Cope, E. D. 1871 I, p. 89, fig. 15 [*Arvicola* (*Pity-
 mys*)]: p. 90 [*A. (Pitymys) sigmodus*].
 Allen, J. A. 1877 B, p. 947. [Arvicola (*Pitymys*)
didelta, *sigmoda*.]
 Cope, E. D. 1883 S, p. 373, fig. 24, no. 15. (Arvic-
 ola.)
 1899 A, pp. 205, 207.
 Roger, O. 1896 A, p. 125. (Arvicola.)
 Trouessart, E. L. 1898 A, p. 555 [*Microtus* (*Pity-
 mys*)]: p. 562 (*M. sigmodus*).
 Wheatley, C. M. 1871 B. (*A. sigmodus*.)
 Pleistocene; Pennsylvania.

Microtus diluvianus Cope.

- Cope, E. D. 1896 F, p. 381.
 1899 A, p. 205, text figure.
 Trouessart, E. L. 1898 A, p. 561.
 Pleistocene; Pennsylvania.

Microtus involutus Cope.

- Cope, E. D. 1871 I, p. 89, fig. 16. [Arvicola (*Pity-
 mys*)].]

¹This is regarded by Cope as possibly different from *A. hiatidens*.

Allen, J. A. 1877 B, p. 947. (*Arvicola*.)

Cope, E. D. 1883 S, p. 374, fig. 25.

1899 A, p. 205.

Roger, O. 1896 A, p. 125. (*Arvicola*.)

Trouessart, E. L. 1898 A, p. 562.

Wheatley, C. M. 1871 B.

Pleistocene; Pennsylvania.

***Microtus pennsylvanicus* (Ord).**

Baird, S. F. 1857 A, p. 523. (*Arvicola*.)

Cope, E. D. 1871 I, p. 87. (*Arvicola riparius*.)

Coues, E. 1877 B, i, p. 156, pl. iv, figs. 42-49. (*Arvicola riparius*.)

Ledy, J. 1862 A, p. 423. ("Arvicola.")

1869 A, p. 406. (*Arvicola riparia*?)

1889 H, p. 6. (*Arvicola riparius*.)

Miller, G. S. 1894 A, p. 190, pl. iii, fig. 2; pl. iv, fig. 1. (*Arvicola riparius*.)

1896 A, p. 63, fig. 33, c. [*Microtus* (*Microtus*).]

Trouessart, E. L. 1898 A, p. 562. [*Microtus* (*Microtus*).]

Recent; eastern United States. Pleistocene; Illinois, Virginia.

***Microtus pinetorum* (Le Conte).**

Le Conte, J. L., 1829, Ann. Lyc. Nat. Hist. N. Y., iii, p. 132, pl. ii. (*Psammomys*.)

Baird, S. F. 1857 A, p. 544, pl. liv, No. 1719. [*Arvicola* (*Pitymys*).]

Cope, E. D. 1871 I, p. 87. [*Arvicola* (*Pitymys*).]

1899 A, p. 205.

Coues, E. 1877 B, i, p. 219, pl. v, figs. 70-73. [*Arvicola* (*Pitymys*).]

Miller, G. S. 1896 A, p. 59, pl. i, fig. 2; text fig. 31, a. [*Microtus* (*Pitymys*).]

Trouessart, E. L. 1898 A, p. 555. [*Microtus* (*Pitymys*).]

Wheatley, C. M. 1871 B.

Recent; United States. Pleistocene; Pennsylvania. Not given in Cope 1899 A, as found in Port Kennedy cave.

***Microtus speothen* Cope.**

Cope, E. D. 1871 I, p. 87, fig. 13. (*Arvicola*.)

Allen, J. A. 1877 B, p. 947. [*Arvicola* (*Isodelta*) *speothen*, A. (*Pitymys*) *tetradelta*.]

Cope, E. D. 1871 I, p. 88, fig. 14. (*Arvicola tetradelta*.)

1883 S, p. 373, fig. 24, no. 13 [*Arvicola* (*Isodelta*)]; p. 373, fig. 24, no. 14 (*A. tetradelta*).

1896 F, p. 383.

1899 A, pp. 205, 206.

Miller, G. S. 1896 A, p. 75. [*Microtus* (*Isodelta*).]

Roger, O. 1896 A, p. 125. (*Arvicola*.)

Trouessart, E. L. 1898 A, p. 561.

Wheatley, C. M. 1871 B. (*Arvicola*.)

Pleistocene; Pennsylvania.

***Microtus* sp. indet.**

Cope, E. D. 1889 F, p. 161. (*Arvicola*.)

Pleistocene (*Equus* beds); Oregon.

FIBER Cuv. Type *Castor zibethicus* Linn.

Cuvier, G., 1800, Leçons d'Anat. Comp., i, tabl. i.

Baird, S. F. 1857 A, p. 560.

Brandt, J. F. 1855 A, p. 171. (*Ondatra*.)

Cope, E. D. 1889 C, p. 249.

Coues, E. 1877 B, i, p. 251.

Flower and Lydekker 1891 A, p. 470.

Miller, G. S. 1896 A, pp. 14, 71.

Nicholson and Lydekker 1889 A, p. 1417.

Tomes, J. 1850 A, p. 560.

Tullberg, T. 1899 A, p. 235.

Zittel, K. A. 1893 B, p. 537.

***Fiber zibethicus* (Linn.).**

Linnaeus, C., 1766, Syst. Nat. ed. xii, p. 79. (*Castor*.)

Baird, S. F. 1857 A, p. 561, pl. liv.

Brandt, J. F. 1855 A, p. 171, pl. iii, figs. 9-16. (*Ondatra*.)

HELISCOMYS Cope. Type *H. vetus* Cope.

Cope, E. D. 1873 CC, p. 3.

Allen, J. A. 1877 A, xi, p. 936.

Cope, E. D. 1874 B, p. 475.

1881 E, p. 375.

1883 S, p. 57.

1884 O, p. 845.

Nicholson and Lydekker 1889 A, p. 1419.

Zittel, K. A. 1893 B, p. 532.

A genus of uncertain position.

***Heliscomys vetus* Cope.**

Cope, E. D. 1873 CC, p. 3.

Allen, J. A. 1877 A, xi, p. 936.

Cope, E. D. 1874 B, p. 475.

1881 E, p. 375.

1881 Q.

1883 S, p. 56, fig. 13, a-d.

1884 O, p. 847, pl. lxx, figs. 14-18.

Matthew, W. D. 1899 A, p. 52.

Roger, O. 1896 A, p. 120.

Trouessart, E. L. 1898 A, p. 578.

Oligocene (White River); Colorado.

GEOMYIDÆ.

- Alston, E. R. 1876 A, p. 87.
 Baird, S. F. 1857 A, p. 364. (Saccomyidæ.)
 Brandt, J. F. 1855 A, p. 188. (Sciurospalacoides.)
 Cope, E. D. 1875 B. (Saccomyidæ.)
 Coues, E. 1875 B, p. 275.
 1875 C, p. 130.
 1877 B, viii, p. 488 (Saccomyidæ); p. 492 (Geomyidæ); x, p. 607 (Geomyidæ).
 Flower, W. H. 1883 D, p. 419.
 Flower and Lydekker 1891 A, p. 478.
- Merriam, C. H. 1896 A.
 Nicholson and Lydekker 1889 A, p. 1416.
 Roger, O. 1896 A, p. 119.
 Scott, W. B. 1895 D, p. 283.
 Thomas, O. 1896 A, p. 1022.
 Trouessart, E. L. 1898 A, p. 571.
 Tullberg, T. 1899 A, pp. 312, 475 (Geomyidæ); p. 465 (Protoptychidæ).
 Winge, H. 1888 A, p. 138. (Saccomyidæ.)
 Zittel, K. A. 1893 B, p. 532.

PROTOPTYCHUS Scott. Type *P. hatcheri* Scott.

- Scott, W. B. 1895 E, p. 269.
 1896 D, p. 923.
 Tullberg, T. 1899 A, p. 465.
- Protoptychus hatcheri** Scott.
 Scott, W. B. 1895 E, p. 269, figs. 1-6.
- Matthew, W. D. 1899 A, p. 49.
 Roger, O. 1896 A, p. 119.
 Scott, W. B. 1895 D, p. 923.
 Trouessart, E. L. 1898 A, p. 577.
 Tullberg, T. 1899 A, p. 464.
 Eocene (Uinta); Utah.

GEOMYS Raf. Type *Mus tuza* Ord.

- Rafinesque, C. S., 1817, Amer. Month. Mag., ii, p. 45.
 Alston, E. R. 1876 A, p. 87.
 Baird, S. F. 1857 A, p. 368.
 Coues, E. 1875 C, p. 130.
 1877 B, x, p. 611.
 Flower and Lydekker 1891 A, p. 478.
 Merriam, C. H. 1896 A, p. 109.
 Nicholson and Lydekker 1889 A, p. 1416.
 Tomes, J. 1860 A, p. 549.
 Trouessart, E. L. 1898 A, p. 571.
- Geomys bisulcatus** Marsh.
 Marsh, O. C. 1871 E, p. 121.
 Allen, J. A. 1877 B, p. 947.
 King, C. 1878 A, p. 430.
 Matthew, W. D. 1899 A, p. 66.
 Roger, O. 1896 A, p. 120.
 Trouessart, E. L. 1898 A, 571.
 Miocene (Loup Fork); Nebraska.
- Geomys bursarius** (Shaw).
 Shaw, G., 1800, Trans. Linn. Soc. v, p. 227, pl. viii (Mus.)
 Baird, S. F. 1857 A, p. 372, pl. 1, fig. 2.
 Cope, E. D. 1869 E, p. 173.
 Coues, E. 1875 C, p. 131.
 1877 B, x, p. 613.
 Leidy, J. 1862 A. (Pseudostoma.)
 1867 B.
 1869 A, p. 406.
 Merriam, C. H. 1896 A, p. 120, pl. i; pl. ix, figs. 8, 9; pl. x, fig. 6; pl. xiii, fig. 11; pl. xiv, fig. 2; pl. xv, fig. 11; pl. xvii, fig. 3; pl. xviii, fig. 1; pl. xix, fig. 3; text figs. 1, 8, 11, 55; with synonymy.
 Trouessart, E. L. 1898 A, p. 571.
 Williston, S. W. 1897 I, p. 304.
 Recent; Mississippi Valley. Pleistocene; Illinois, Nebraska.

THOMOMYS Wied. Type *T. rufescens* Wied.

- Wied., 1839, N. Act. Acad. Leop. Carol., xix, p. 377.
 Allen, J. A. 1893 A, pp. 53, 64.
 Alston, E. R. 1876 A, p. 87.
 Baird, S. F. 1857 A, p. 388.
 Coues, E. 1875 C, p. 134.
 1877 B, x, p. 621.
 Flower and Lydekker 1891 A, p. 478.
 Merriam, C. H. 1898 A, p. 198.
 Nicholson and Lydekker 1889 A, p. 1416.
 Trouessart, E. L. 1898 A, p. 575.
- Thomomys bulbivorus** (Richardson).
 Richardson, J., 1829, Fauna Bor.-Amer., i, p. 206, pl. 18B.
 Allen, J. A. 1893 A, p. 56, pl. i, fig. 14.
 Baird, S. F. 1857 A, p. 389, pl. iii, fig. 1.
 Brandt, J. F. 1855 A, p. 187. ((Tomomys).)
 Cope, E. D. 1883 S, p. 374.
 1889 S, p. 980.
- Coues, E. 1875 C, p. 136. (T. talpoides bulbivorus.)
 1877 B, x, p. 626. (T. talpoides bulbivorus.)
 Merriam, C. H. 1895 A, p. 198, figs. 68-71.
 Trouessart, E. L. 1898 A, p. 575.
 Tullberg, T. 1899 A, p. 328.
 Recent; northwestern United States. Pleistocene; Oregon.
- Thomomys clusius** Coues.
 Coues, E. 1875 C, p. 138.
 Allen, J. A. 1893 A, pp. 61, 62, pl. i, fig. 2.
 Cope, E. D. 1878 H, p. 389. ("Thomomys near clusius.")
 1889 F.
 1889 S, p. 980.
 Coues, E. 1877 B, x, p. 629, pl. vii.
 Trouessart, E. L. 1898 A, p. 576.
 Recent; Wyoming, Idaho. Pleistocene; (Equus beds); Oregon.

Thomomys talpoides Richardson.

Richardson, J., 1828, Zool. Jour., iii, p. 518.

Allen, J. A. 1898 A, p. 66.

Cope, E. D. 1878 H, p. 389.
1889 F.

Coues, E. 1875 C, pp. 184, 185.

Coues, E. 1877 B, x, p. 628.

Roger, O. 1896 A, p. 120.

Trouessart, E. L. 1898 A, p. 576.

Recent; Canada to Upper Missouri River,
Pleistocene; Oregon.**PLEUROLICUS** Cope. Type *P. sulcifrons* Cope.

Cope, E. D. 1879 D, p. 66.

1879 B, p. 55.

1881 E, p. 380.

1883 S, p. 166.

1884 O, p. 866.

Flower and Lydekker 1891 A, p. 479.

Nicholson and Lydekker 1899 A, p. 1416.

Scott, W. B. 1895 D.

1895 E, pp. 270, 286.

Zittel, K. A. 1893 B, p. 533.

Pleurolicus diplophrys Cope.

Cope, E. D. 1881 E, p. 381.

1881 Q.

1883 S, p. 167, fig. 16, c, d.

1884 O, pp. 867, 869, pl. lxiv, fig. 9.

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 120.

Scott, W. B. 1895 E, p. 284, figs. 5, 6.

Trouessart, E. L. 1898 A, p. 578.

Miocene (John Day); Oregon.

Pleurolicus leptophrys Cope.

Cope, E. D. 1881 E, p. 381.

1881 Q.

1883 S, p. 167, fig. 16, a, b.

1884 O, p. 868, pl. lxiv, figs. 7, 8.

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 120.

Trouessart, E. L. 1898 A, p. 578.

Miocene (John Day); Oregon.

Pleurolicus sulcifrons Cope.

Cope, E. D. 1879 D, p. 66.

1879 B, p. 55.

1881 E, p. 381.

1881 Q.

1883 S, p. 167.

1884 O, p. 867, pl. lxiv, fig. 6.

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 120.

Trouessart, E. L. 1898 A, p. 578.

Miocene (John Day); Oregon.

ENTOPTYCHUS Cope. Type *E. cavifrons* Cope.

Cope, E. D. 1879 D, p. 64.

1881 E, p. 378.

1883 S, p. 168.

1884 O, p. 855.

Flower and Lydekker 1891 A, p. 479.

Nicholson and Lydekker 1899 A, p. 1416.

Scott, W. B. 1895 D.

1895 E, p. 286.

Zittel, K. A. 1893 B, p. 533.

Entoptychus cavifrons Cope.

Cope, E. D. 1879 D, p. 64.

1879 B, p. 55.

1881 E, p. 380.

1881 Q.

1883 S, p. 169.

1884 O, pp. 858, 862, pl. lxiv, fig. 4.

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 120.

Trouessart, E. L. 1898 A, p. 578.

Miocene (John Day); Oregon.

Entoptychus crassiramus Cope.

Cope, E. D. 1879 D, p. 65.

1879 B, p. 55.

1881 E, p. 380.

1881 Q.

1883 S, p. 168, fig. 17.

1884 O, pp. 858, 864, pl. lxiv, fig. 5.

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 120.

Trouessart, E. L. 1898 A, p. 579.

Miocene (John Day); Oregon.

Entoptychus lambdoideus Cope.

Cope, E. D. 1881 E, p. 380.

1881 Q.

1883 S, p. 169.

1884 O, pp. 858, 860, pl. lxiv, fig. 2.

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 120.

Trouessart, E. L. 1898 A, p. 578.

Miocene (John Day); Oregon.

Entoptychus minor Cope.

Cope, E. D. 1881 E, p. 379.

1881 Q.

1883 S, p. 170.

1884 O, pp. 858, 861, pl. lxiv, fig. 3.

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 120.

Trouessart, E. L. 1898 A, p. 578.

Miocene (John Day); Oregon.

Entoptychus planifrons Cope.

Cope, E. D. 1879 D, p. 65.

1879 B, p. 55.

1881 E, p. 379.

1881 Q.

1883 S, p. 167, fig. 18.

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 120.

Trouessart, E. L. 1898 A, p. 578.

Zittel, K. A. 1893 B, p. 533, fig. 445.

Miocene (John Day); Oregon.

DIPODIDÆ.

Allen, J. A. 1900 A, p. 199.
 Baird, S. F. 1857 A, p. 428. (Dipodinae.)
 Flower, W. H. 1883 D, p. 419.
 Flower and Lydekker 1891 A, p. 479.
 Nicholson and Lydekker 1889 A, p. 1416.

Thomas, O. 1896 A, p. 1023.
 Tullberg, T. 1899 A, pp. 182, 408.
 Winge, H. 1888 A, p. 118.
 Zittel, K. A. 1893 B, p. 526.

ZAPODINÆ.

Coues, E., 1875, Bull. U. S. Geol. Surv., ser. 2, no. 5, p. 253. (Zapodidæ.)
 Alston, E. R. 1876 A, p. 89. (Jaculinae.)
 Coues, E. 1877 B, vii, p. 454. (Zapodidæ.)

Flower and Lydekker 1891 A, p. 480.
 Thomas, O. 1896 A, p. 1023.
 Trouessart, E. L. 1898 A, p. 590.

ZAPUS COUES. Type *Dipus hudsonius* Zimm.

Coues, E., 1875, Bull. U. S. Geol. Surv. Terr., ser. 2, no. 5, p. 253.
 Allen, J. A. 1900 A, p. 200.
 Baird, S. F. 1857 A, p. 429. (Jaculus.)
 Brandt, J. F. 1855 A. (Jaculus.)
 Coues, E. 1876 A.
 1877 B, vii, p. 465.
 Flower and Lydekker 1891 A, p. 480.
 Nicholson and Lydekker 1889 A, p. 1416.
 Palmer, T. S. 1897 A.
 Preble, E. A. 1899 A, p. 13.
 Thomas, O. 1896 A, p. 1023, footnote.

Zapus hudsonius (Zimm.)

Zimmermann, E., 1780, Geog. Gesch., ii, p. 358. (Dipus.)
 Allen, J. A. 1900 A, p. 201.

Baird, S. F. 1857 A, p. 430. (Jaculus.)
 Cope, E. D. 1871 I, p. 86. (Jaculus.)
 1883 S, p. 373. (Meriones.)
 1899 A, p. 200.
 Coues, E. 1876 A.
 1877 B, vii, p. 465.
 Flower and Lydekker 1891 A, p. 480. (Z. hudsonianus.)
 Nicholson and Lydekker 1889 A, p. 1416.
 Preble, E. A. 1899 A, p. 15, pl. i, figs. 3, 3a.
 Trouessart, E. L. 1898 A, p. 590.
 Tullberg, T. 1899 A, p. 185.
 Wheatley, C. M. 1871 B. (Jaculus.)
 Zittel, K. A. 1893 B, p. 527.

Recent; Alaska to Hudson Bay, south to New Jersey, west to Iowa and Missouri. Pleistocene; Pennsylvania.

Superfamily HYSTRICOMORPHA.

Alston, E. R. 1876 A, p. 91.
 Brandt, J. F. 1855 A.
 Cope, E. D. 1881 E, p. 361.
 1883 S, p. 43.
 1884 O, p. 812.
 Flower and Lydekker 1891 A, p. 480.
 Gadow, H. 1898 A, p. 43.
 Haeckel, E. 1895 A, p. 510.
 Lydekker, R. 1896 B.

Nicholson and Lydekker 1889 A, p. 1413.
 Schlosser, M. 1884 A, p. 98.
 1890 C, p. 250.
 Slade, D. D. 1888 A, p. 248.
 1892 B.
 Steinmann and Döderlein 1890 A, p. 733.
 Thomas, O. 1896 A, p. 1024.
 Tullberg, T. 1899 A, pp. 82, 363.
 Zittel, K. A. 1893 B, p. 539.

HYSTRICIDÆ.

Allen, J. A. 1877 A, iii, p. 385.
 Alston, E. R. 1876 A, p. 93.
 Baird, S. F. 1857 A, p. 665.
 Cope, E. D. 1875 C, p. 26.
 Flower, W. H. 1883 D, p. 420.
 Flower and Lydekker 1891 A, p. 484.
 Leidy, J. 1871 C, p. 364.
 Nicholson and Lydekker 1889 A, p. 1415.

Roger, O. 1896 A, p. 127.
 Trouessart, E. L. 1898 A, p. 614.
 Tullberg, T. 1899 A, pp. 83, 366.
 Turner, H. N. 1848 A.
 Winge, H. 1888 A, p. 126.
 Zittel, K. A. 1893 B, p. 539.

No species of this family, as its limits are here recognized, are found in North America.

ERETHIZONTIDÆ.

Thomas, O. 1896 A, p. 1025.
 Allen, J. A. 1877 A, iii, p. 385. (Hystricidæ, in part.)
 Baird, S. F. 1857 A, p. 565. (Hystricidæ, in part.)

Flower, W. H. 1883 D, p. 420. (Hystricidæ, in part.)
 Trouessart, E. L. 1898 A, p. 619. (Coendidæ.)
 Tullberg, T. 1899 A, pp. 108, 368.

ERETHIZONTINÆ.

Thomas, O. 1896 A, p. 1025.

ERETHIZON F. Cuv. Type *Hystrix dorsata* Linn.

- Cuvier, F., 1822, Mém. de Muséum, Paris, ix, p. 426.
 Allen, J. A. 1877 A, iii, p. 386.
 Alston, E. R. 1876 A, p. 94. (Erythizon.)
 Flower, W. H. 1883 D, p. 420.
 Flower and Lydekker 1891 A, p. 484.
 Leidy, J. 1858 E, p. 22. (Hystricope, subgenus.)
 Nicholson and Lydekker 1889 A, p. 1415.
 Winge, H. 1888 A, p. 129.
 Zittel, K. A. 1893 B, p. 540.

Erethizon cloacinus Cope.

- Cope, E. D. 1871 I, p. 93, fig. 19.
 Allen, J. A. 1877 A, iii, p. 398.
 Cope, E. D. 1883 S, p. 379.
 1899 A, p. 199.
 Roger, O. 1896 A, p. 127.
 Trouessart, E. L. 1898 A, p. 620.
 Wheatley, C. M. 1871 B.
 Pleistocene; Pennsylvania.

Erethizon dorsatus (Linn.).

- Linnæus, C., 1758, Syst. Nat., ed. 10, i, p. 57. (Hystrix.)

- Allen, J. A. 1877 A, iii, p. 568.
 Cope, E. D. 1899 A, p. 198. (E. dorsatum?)
 Leidy, J. 1859 H, p. 5.
 Trouessart, E. L. 1898 A, p. 620.
 Tullberg, T. 1899 A, p. 109.
 Recent; northeastern U. S.; Canada, west to Saskatchewan. Pleistocene; Pennsylvania.

Erethizon venustus (Leidy).

- Leidy, J. 1858 E, p. 22. [Hystrix (Hystricope).]
 Allen, J. A. 1877 A, iii, p. 397. (Hystrix? venustus.)
 Cope, E. D. 1881 Q. (Hystrix.)
 Hayden, F. V. 1858 B, p. 407. (Hystrix.)
 King, C. 1878 A, p. 430. (Hystrix.)
 Leidy, J. 1869 A, pp. 343, 407, pl. xxvi, figs. 23, 24. (Hystrix.)
 1871 C, p. 364. (Hystrix.)
 Roger, O. 1896 A, p. 127.
 Trouessart, E. L. 1898 A, p. 620.
 Zittel, K. A. 1893 B, p. 540.
 Pleistocene; Nebraska.

CASTOROIDIDÆ.

- Allen, J. A. 1887 A, v, p. 419.
 Flower and Lydekker 1891 A, p. 488.
 Moore, J. 1891 A.
 Nicholson and Lydekker 1889 A, p. 1415.

- Roger, O. 1896 A, p. 136.
 Trouessart, E. L. 1898 A, p. 630.
 Zittel, K. A. 1893 B, p. 547.

CASTOROIDES Foster. Type *C. ohioensis* Foster.

- Foster, J. W. 1838 A, p. 81.
 Allen, J. A. 1877 A, v, p. 419.
 Alston, E. R. 1876 A, p. 78.
 Baird, S. F. 1857 A, p. 363.
 Cope, E. D. 1883 S, p. 370.
 Flower and Lydekker 1891 A, p. 488.
 Moore, J. 1893 A, p. 67.
 Nicholson and Lydekker 1889 A, p. 1415.
 Pictet, F. J. 1853 A, p. 252.
 Scott, W. B. 1892 A, p. 410.
 Winge, H. 1888 A, p. 139.
 Wyman, J. 1846 B, p. 391.
 1850 A, p. 56.
 Zittel, K. A. 1893 B, p. 547.

Castoroides ohioensis Foster.

- Foster, J. W. 1838 A, p. 81, figs. A-D.
 Agassiz, L. 1851 B.
 Allen, J. A. 1877 A, v, p. 423.
 Alston, E. R. 1876 A, p. 79.
 Baird, S. F. 1857 A, p. 363.
 Cope, E. D. 1883 S, p. 370, figs. 22, 23.
 1888 I, p. 6, figs. 3, 4.
 1889 C, p. 264.
 Cope and Wortman 1884 A, p. 37, pl. iv, figs. 1-3.
 De Kay, J. E. 1842 C, p. 75, pl. xi, fig. 3 [Castor (Trogotherium) ohioensis].
 Foster, J. W. 1837 A, p. 80, figs. 15-18. (No generic or specific name.)
 Hall, J. 1846 A.
 1846 B.

- Kindle, E. M. 1898 A, p. 485.
 Langdon, F. W. 1883 A.
 Le Conte, J. L. 1852 C.
 Leidy, J. 1860 B, p. 114, pl. xxii, figs. 5-8.
 1867 C, p. 97.
 1869 A, p. 406.
 1880 A, p. 347.
 1889 H, p. 14, pl. ii, figs. 7-20.
 Mercer, H. C. 1894 A, p. 98.
 Miller, G. S. 1890 B, p. 375.
 Moore, J. 1890 A.
 1890 B.
 1891 A.
 1893 A.
 1900 A, p. 171, pls. i, ii.
 Newberry, J. S. 1870 A, p. 83.
 1874 A, p. 92.
 1875 A, p. vi.
 Pictet, F. J. 1853 A, p. 253.
 Pomel, A. 1848 D, p. 165.
 Roger, O. 1896 A, p. 136.
 Trouessart, E. L. 1898 A, p. 630.
 Whitteley, C. 1848 A, p. 215.
 Wyman, J. 1846 A.
 1846 B, pls. 37-39.
 1850 A, pp. 62-64, fig. 5.
 1850 D, p. 280.
 Tullberg, T. 1899 A, p. 474.
 Pleistocene; Ohio, Indiana, Illinois, Tennessee, New York, South Carolina, Pennsylvania, Texas, Michigan.

DASYPROCTIDÆ.

- Adloff, P. 1896 A, p. 388. (Genus *Dasyprocta*.)
 Alston, E. R. 1876 A, p. 95.
 Flower and Lydekker 1899 A, p. 488.
 Nicholson and Lydekker 1889 A, p. 1414.
 Parker, W. K. 1868 A, p. 207, pl. xxiv, fig. 8. (Genus *Dasyprocta*.)
 Roger, O. 1896 A, p. 128.
 Trouessart, E. L. 1898 A, p. 633.
 Tullberg, T. 1899 A, pp. 90, 370. (*Cavidiæ*, in part.)
 Winge, H. 1888 A, p. 126. (*Dasyproctini*.)
 Zittel, K. A. 1893 B, p. 540.

AGOUTI Lacépède. Type *Mus paca* Linn.

- Lacépède, B. G., 1799, Tab. ord., gen. mamm., p. 9.
 Cuvier, F., 1807, Ann. Mus., Paris, x, p. 203. (Cœlogenyæ.)
 Flower and Lydekker 1891 A, p. 489. (Cœlogenyæ.)
 Harlan, R. 1825 A, p. 126. (*Osteopera*, type *O. platycephala*=*C. paca*.)
 Palmer, T. S. 1897 A.
 Thomas, O. 1896 A, p. 1026. (Cœlogenyæ.)
 Trouessart, E. L. 1898 A, p. 636. (Cœlogenyæ.)
 Tullberg, T. 1899 A, p. 91. (Cœlogenyæ.)
 Harlan, R. 1825 A, p. 126. (*Osteopera platycephala*.)
 Leidy, J. 1869 A, p. 444. (Cœlogenyæ.)
 Palmer, T. S. 1897 A.
 Pictet, F. J. 1853 A, p. 254. (Cœlogenyæ.)
 Roger, O. 1896 A, p. 129. (Cœlogenyæ.)
 Trouessart, E. L. 1898 A, p. 636. (Cœlogenyæ.)
 Tullberg, T. 1899 A, p. 91.
 Recent; Mexico to Paraguay. Reported by Harlan as a fossil found in vicinity of Philadelphia; but doubtless transported thither.
Agouti paca (Linn.).
Linnaeus, C., 1766, Syst. Nat., ed. 12, p. 81. (Mus.)

CAVIIDÆ.

- Adloff, P. 1896 A, p. 387. (Genus *Cavia*.)
 Alezais, H. 1898 A. (Genus *Cavia*.)
 1899 A. (Genus *Cavia*.)
 Flower and Lydekker 1891 A, p. 489.
 Thomas, O. 1896 A, p. 1026.
 Trouessart, E. L. 1898 A, p. 636.
 Tullberg, T. 1899 A, pp. 90, 370. (In part.)
 Zittel, K. A. 1893 B, p. 544.

HYDROCHÆRUS Brisson. Type *Sus hydrochæris* Linn.

- Brisson, A. D., 1762, Reg. Anim., pp. 12, 80.
 Burmeister, H. 1879 B, p. 263.
 Flower and Lydekker 1891 A, p. 490.
 Leidy, J. 1853 E, p. 241. (*Oromys*, type *O. sesopi*; no description.)
 Nicholson and Lydekker 1889 A, p. 1414.
 Owen, R. 1868 A, p. 296, fig. 235.
 Schlosser, M. 1890 C, p. 251.
 Thomas, O. 1896 A, p. 1026.
 Tomes, J. 1850 A, p. 557.
 Tullberg, T. 1899 A, p. 105.
 Zittel, K. A. 1893 B, p. 546.
 Leidy, J. 1860 B, p. 112, pl. xxi, figs. 3-6.
 1869 A, p. 407.
 Roger, O. 1896 A, p. 136.
 Trouessart, E. L. 1898 A, p. 642.
 Pleistocene; South Carolina.
Hydrochærus robustus Leidy.
 Leidy, J. 1888 B, p. 276, fig. 1.
 1890 B, p. 184. (*H. magnus* Gerv. and Amegh.)
 Roger, O. 1896 A, p. 136.
 Pleistocene, Nicaragua, Florida?
 There is doubt about the identification of the Florida specimen.
 Dr. Jeffries Wyman has reported the finding of a skull of the capybara, *H. hydrochæris*, on the southwestern frontier of the United States. Proc. Bost. Soc. Nat. Hist., vii, 1860, p. 350.
Hydrochærus sesopi Leidy.
 Leidy, J. 1856 J, p. 165.
 Allen, J. A. 1877 B, p. 949.
 Cope, E. D. 1883 S, p. 379, fig. 30.
 1888 I, p. 9, fig. 6.
 Leidy, J. 1853 E, p. 241. (*Oromys sesopi*; no description.)

Suborder DUPLICIDENTATA.

- Alston, E. R. 1876 A.
 Flower and Lydekker 1891 A, p. 491.
 Nicholson and Lydekker 1889 A, p. 1412.
 Palmer, T. S. 1897 A.
 Schlosser, M. 1884 A, p. 123. (Pliodonta.)
 Thomas, O. 1896 A, p. 1026.
 Tullberg, T. 1899 A, pp. 42, 338.
 Woodward, A. S. 1896 B, p. 377.

Superfamily LAGOMORPHA.

Brandt, J. F. 1855 A.
Cope, E. D. 1881 E, p. 361.
1883 S, p. 43.
1884 O, p. 812.
Gadow, H. 1898 A, p. 42.
Lydekker, R. 1896 B.
Major, Fors. 1898 A, p. 208.
1899 A, p. 433.

Roger, O. 1896 A, p. 140.
Schlosser, M. 1884 A, p. 98.
Slade, D. D. 1892 B.
Steinmann and Döderlein 1890 A, p. 785.
Thomas, O. 1896 A, p. 1026.
Zittel, K. A. 1893 B, p. 549.

OCHOTONIDÆ.

Trouessart, E. L. 1898 A, p. 644.
Allen, J. A. 1877 A, iv, p. 405. (Lagomyidæ.)
Flower, W. H. 1883 D, p. 421. (Lagomyidæ.)
Flower and Lydekker 1891 A, p. 491. (Lagomyidæ.)

Major, Fors. 1899 A, p. 463. (Lagomyidæ.)
Schlosser, M. 1884 A, p. 9. (Lagomyidæ.)
Tullberg, T. 1899 A, p. 53. (Lagomyidæ.)
Zittel, K. A. 1893 B, p. 551. (Lagomyidæ.)

OCHOTONA Link. Included *O. pusillus*, *alpinus*, and *ochotona*.

Link H. F., 1796, Zool. Beytr., i, pt. ii, p. 74.
Allen, J. A. 1877 A, p. 407. (Lagomys.)
Cope, E. D. 1871 I, p. 93. (Praotherium.)
Cuvier, G., 1796, Tabl. Élém., p. 132. (Lagomys.)
Flower and Lydekker 1891 A, p. 491. (Lagomys.)
Major, Fors. 1899 A, p. 433. (Lagomys.)
Meyer, H. 1845 A. (Lagomys.)
Thomas, O. 1896 A, p. 1026.
Trouessart, E. L. 1898 A, p. 645 (Ochotona); p. 649 (Praotherium).
Winge, H. 1888 A, p. 112. (Lagomys.)

Zittel, K. A. 1893 B, p. 553. (Lagomys.)
Ochotona palatinus (Cope).
Cope, E. D. 1871 I, pp. 94, 102, fig. 20. (Praotherium.)
1883 S, p. 379. (Lagomys.)
1899 A, p. 209. (Lagomys.)
Roger, O. 1896 A, p. 140. (Praotherium.)
Trouessart, E. L. 1898 A, p. 649. (Praotherium.)
Pleistocene; Pennsylvania.

LEPORIDÆ.

Allen, J. A. 1877 A, ii, p. 265.
Alston, E. R. 1876 A, p. 97.
Baird, S. F. 1857 A, p. 572.
Brandt, J. F. 1855 A.
Cope, E. D. 1881 J, p. 545.
Flower and Lydekker 1891 A, p. 492.
Glebel, C. G. 1880 A.
Hemstedt, R. 1870 A.
Hilgendorf, F. 1866 A, p. 673.
Howes, G. B. 1887 B.
Leidy, J. 1871 C, p. 363.
Major, Fors. 1899 A, p. 465.

Marsh, O. C. 1877 E.
Nicholson and Lydekker 1889 A, p. 1412.
Parker, W. K. 1868 A, p. 207.
Roger, O. 1896 A, p. 140.
Steinmann and Döderlein 1890 A, p. 785.
Thomas, O. 1896 A, p. 1027.
Tomes, J. 1850 A, p. 560.
Trouessart, E. L. 1898 A, p. 643.
Tullberg, T. 1899 A, p. 50.
Winge, H. 1888 A, p. 110.
Woodward, M. F. 1894 A.
Zittel, K. A. 1893 B, p. 550.

PALÆOLAGUS Leidy. Type *P. haydeni* Leidy.

Leidy, J. 1856 I, p. 89.
Cope, E. D. 1873 T, p. 4. (Tricium, type *T. avunculus* = *P. haydeni*.)
1874 B, p. 477.
1881 E, p. 381.
1883 S, p. 170.
1884 O, p. 870.
Leidy, J. 1869 A, p. 331.
1871 C, p. 363.
Lydekker, R. 1887 A, p. 325.
Major, Fors. 1899 A, pp. 443, 470.
Nicholson and Lydekker 1889 A, p. 1412.
Winge, H. 1888 A, p. 113.
Zittel, K. A. 1893 B, p. 550.

Palæolagus haydeni Leidy.

Leidy, J. 1856 I, p. 89.

Cope, E. D. 1873 S, p. 1. (*P. agapetillus*.)
1873 T, p. 4 (*Tricium avunculus*); p. 5 (*T. agapetillum*).
1873 CC, p. 4. (*Tricium agapetillum*, *T. anæ*, *T. avunculus*.)
1874 B, p. 478. (*P. haydeni*, *P. agapetillus*.)
1879 B, p. 55.
1879 D, p. 63.
1881 E, p. 384. (*P. haydeni*, *P. agapetillus*.)
1881 Q. (*P. haydeni*, *P. agapetillus*.)
1883 S, p. 173, fig. 20.
1884 O, pp. 874, 875, pl. lxvi, figs. 1-27.
Hayden, F. V. 1858 B, p. 158.
King, C. 1878 A, p. 412.
Leidy, J. 1869 A, pp. 331, 404, pl. xxvi, figs. 14-20.
1871 C, p. 363.
Lydekker, R. 1887 A, p. 326.

Major, Fors. 1899 A, p. 443, pl. xxxvi, fig. 36.
 Matthew, W. D. 1899 A, 53.
 Roger, O. 1896 A, p. 140.
 Trouessart, E. L. 1898 A, p. 648.
 Zittel, K. A. 1893 B, p. 550, fig. 464.
 Oligocene (White River); South Dakota,
 Nebraska, Colorado, Oregon?.

***Palaeolagus intermedius* Matth.**

Matthew, W. D. 1899 A, p. 53.
 Oligocene (White River); Colorado.

***Palaeolagus leporinus* (Cope).**

Cope, E. D. 1873 T, p. 5. (Tricium.)
 1873 CC, p. 4. (Tricium.)
 Oligocene (White River); Colorado.
 This is probably a synonym of *P. haydeni*. It
 was not recognized by Professor Cope after 1873;
 but I do not find that he referred it to any of
 his other species.

***Palaeolagus triplex* Cope.**

Cope, E. D. 1873 T, p. 4.
 1873 CC, p. 4.
 1874 B, p. 479.
 1881 E, p. 384.
 1883 S, p. 173.
 1884 O, pp. 874, 881, pl. lxvi, fig. 28.

Major, Fors. 1899 A, p. 443.
 Matthew, W. D. 1899 A, p. 53.
 Roger, O. 1896 A, p. 140.
 Trouessart, E. L. 1898 A, p. 648.
 Oligocene (White River); Colorado.

***Palaeolagus turgidus* Cope.**

Cope, E. D. 1873 T, p. 4. (*P. turgidus*, *Tricium*
paniense.)
 1873 CC, p. 4. (*P. turgidus*, *Tricium pani-*
ense.)
 1874 B, p. 479. (*P. turgidus*, *Tricium pani-*
ense.)
 1881 E, p. 384.
 1881 Q.
 1883 S, p. 173.
 1884 O, pp. 874, 882, pl. lxvi, fig. 28; pl. lxvii,
 figs. 13-27.
 1885 H.
 1886 U, p. 80.
 1889 I.
 1891 A, p. 5, pl. xiv, fig. 9.
 Lydekker, R. 1887 A, p. 326.
 Matthew, W. D. 1899 A, p. 52.
 Roger, O. 1896 A, p. 140.
 Trouessart, E. L. 1898 A, p. 648.
 Oligocene (White River); Colorado, western
 Canada.

PANOLAX Cope. Type *P. sanctæfidei* Cope.

Cope, E. D. 1874 I, p. 151.
 1874 O, p. 17.
 1877 K, p. 295.
 1881 E, p. 381.
 1883 S, p. 173.
 Nicholson and Lydekker 1889 A, p. 1412.
 Zittel, K. A. 1893 B, p. 550.

***Panolax sanctæfidei* Cope.**

Cope, E. D. 1874 I, p. 151.

Cope, E. D. 1874 O, p. 17.
 1875 F, p. 73.
 1877 K, p. 295, pl. lxxix, figs. 16-22. (*P. sanc-*
tæfidei.)
 1881 Q, p. 586.
 1883 S, p. 173.
 Matthew, W. D. 1899 A, p. 67.
 Roger, O. 1896 A, p. 140.
 Trouessart, E. L. 1898 A, p. 648.
 Miocene (Loup Fork); New Mexico.

LEPUS Linn. Type *L. timidus* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 57.
 Adloff, P. 1898 A, p. 392.
 Allen, J. A. 1877 A, ii, p. 282.
 Baird, S. F. 1857 A, p. 573.
 Cope, E. D. 1881 E, p. 384.
 1883 S, p. 173.
 1884 O, p. 885.
 1889 C, p. 269.
 Flower, W. H. 1885 A.
 Flower and Lydekker 1891 A, p. 492.
 Giebel, C. G. 1880 A.
 Hilgendorf, F. 1866 A, p. 673.
 Howes, G. B. 1896 A.
 Huxley, T. H. 1872 A, p. 371.
 Major, Fors. 1899 A, pp. 433, 463.
 Owen, R. 1866 B, pp. 364, 367, figs. 229, 233.
 Parker, W. K. 1868 A, p. 207, pl. xxv, figs. 1-5.
 Tomes, J. 1859 A, p. 560.
 Trouessart, E. L. 1898 A, p. 649.
 Zittel, K. A. 1893 B, p. 550.

***Lepus ennisianus* Cope.**

Cope, E. D. 1881 E, p. 385.
 1881 Q.
 1883 S, p. 173, fig. 21.

Cope, E. D. 1884 O, pp. 881, 886, pl. lxxiv, fig. 11; pl.
 xlvii, fig. 29.
 Matthew, W. D. 1899 A, p. 62.
 Roger, O. 1896 A, p. 140.
 Trouessart, E. L. 1898 A, p. 649.
 Miocene (John Day); Oregon.
***Lepus sylvaticus* Bachm.**
 Bachman, J., 1837, Jour. Acad. Nat. Sci., Phila.,
 vii, p. 403.
 Allen, J. A. 1877 A, ii, p. 327.
 Baird, S. F. 1857 A, p. 597, pl. lviii, fig. 1.
 Cope, E. D. 1869 E, p. 175.
 1871 I, p. 93.
 1899 A, p. 209.
 Holmes, F. S. 1858 B.
 Leidy, J. 1860 B, p. 113, pl. xxii, fig. 1.
 1862 A.
 1869 A, p. 403.
 1889 H, p. 6.
 Trouessart, E. L. 1898 A, p. 658.

Wheatley, C. M. 1871 B.

Recent; eastern United States. Pleistocene;
 Illinois, South Carolina, Pennsylvania, Vir-
 ginia.

ORDER INSECTIVORA.

- Allen, H. 1880 A.
 Baur, G. 1885 K, p. 459.
 Blainville, H. M. D. 1864 A, i, H, pls. i-xi.
 Cope, E. D. 1874 B, pp. 464, 472.
 1876 A.
 1877 K, pp. 85, 153.
 1880 B, p. 455.
 1883 I, p. 78.
 1884 O, pp. 185, 197, 739.
 1885 K.
 1887 S, p. 343.
 1888 D.
 1891 N, p. 72.
 1898 B, p. 115.
 Dobson, G. E. 1888 A.
 Flower, W. H. 1876 B, xiii, p. 514.
 1883 A.
 1883 D, p. 400.
 1885 A.
 Flower and Lydekker 1891 A, p. 610.
 Gadow, H. 1898 A, p. 51.
 Gill, T. 1872 A, p. 303.
 1872 B, pp. 18, 49.
 1875 A.
 1883 B.
 Gill and Coues 1877 A, p. 1058.
 Haeckel, E. 1895 A, pp. 578, 580.
 Hay, O. P. 1899 F, p. 682.
 Huxley, T. H. 1870 A.
 1872 A, p. 875.
 Leche, W. 1880 A.
 1893 A.
 1896 A, p. 286.
 1897 A.
 1897 B.
 Ledy, J. 1871 C, p. 364.
 Lydekker, R. 1886 B, p. 14.
 1896 B.
 Marsh, O. C. 1877 E.
 Meyer, O. 1885 A, p. 229.

- Mivart, St. G. 1867 B.
 1867 C.
 1868 A.
 1871 A.
 Nicholson and Lydekker 1889 A, p. 1454.
 Osborn, H. F. 1888 G, p. 260.
 1893 D.
 1898 A, p. 146.
 1899 B, p. 94.
 1900 C, p. 566.
 Owen, R. 1843 A, p. 57.
 1845 B, p. 412.
 1866 B, p. 385.
 1868 A, p. 301.
 Parker, W. K. 1868 A, p. 210.
 1885 A, p. 125.
 1886 A.
 Parsons, F. G. 1899 A.
 1900 A.
 Paulli, S. 1900 B, p. 484.
 Pomel, A. 1848 C, p. 246.
 Ryder, J. A. 1878 A, p. 49.
 Schlosser, M. 1886 C.
 1887 B, p. 80.
 1888 A.
 1890 A.
 1890 C.
 1890 D.
 Scott, W. B. 1892 A, p. 422.
 Slade, D. D. 1888 A, p. 242.
 1892 A.
 Steinmann and Döderlein 1890 A, p. 709.
 Tomes, C. S. 1898 A, p. 481.
 Tornier, G. 1890 A.
 Trouessart, E. L. 1898 A, p. 166.
 Weyhe, — 1875 A, p. 104.
 Woodward, M. F. 1896 A.
 Wortman, J. L. 1886 A, p. 417.
 Zittel, K. A. 1893 B, pp. 557, 571, 727.

TALPIDÆ.

- Baird, S. F. 1867 A, p. 57.
 Bate, C. S. 1867 A, p. 377. (Genus Talpa.)
 Blainville, H. M. D. 1864 A, i, H, pls. i, v, vii, viii,
 ix. (Genus Talpa.)
 Cope, E. D. 1883 I, p. 80.
 Flower, W. H. 1883 D, p. 403.
 1885 A.
 Flower and Lydekker 1891 A, p. 628.
 Dobson, G. E. 1883 A, p. 126.
 Gill, T. 1872 B, p. 18.
 1875 A.
 Kober, J. 1882 A.
 1884 A.
 Leche, W. 1895 A, p. 50.
 Mivart, St. G. 1867 B.

- Mivart, St. G. 1867 C, i, p. 286; ii, p. 150.
 1871 A, p. 75.
 Moeley and Lankaster 1868 A.
 Nicholson and Lydekker 1889 A, p. 1458.
 Owen, R. 1868 A, p. 303.
 Parker, W. K. 1868 A, p. 210, pl. xxvii, figs. 1-17.
 1885 B, p. 378.
 Pomel, A. 1848 C, p. 246. (Talpina.)
 Roger, O. 1896 A, p. 23.
 Schlosser, M. 1887 B, p. 125.
 Tomes, C. S. 1898 A, p. 491. (Genus Talpa.)
 Trouessart, E. L. 1898 A, p. 203.
 True, F. W. 1896 A, p. 18.
 Woodward, M. F. 1896 A, p. 575.
 Zittel, K. A. 1893 B, p. 563.

SCALOPS¹ Cuvier. Type *Sorex aquaticus* Linn.

Baird, S. F. 1857 A, p. 58.
 Dobson, G. E. 1883 A, p. 159.
 Flower and Lydekker 1891 A, p. 630.
 Leche, W. 1895 A, p. 50.
 Mivart, St. G. 1867 B, p. 281.
 1867 C, i, p. 311; ii, p. 151.
 1871 A, p. 77.

Owen, R. 1868 A, p. 308.
 True, F. W. 1896 A, pp. 7, 19.
 Zittel, K. A. 1893 B, p. 565.

Scalops sp. indet.

Cope, E. D. 1871 I, p. 95.
 Pleistocene; Pennsylvania.

TALPAVUS Marsh. Type *T. nitidus* Marsh.

Marsh, O. C. 1872 G, p. 128.
 1877 E.
 Nicholson and Lydekker 1889 A, p. 1458.
 Schlosser, M. 1887 B, p. 143.
 Zittel, K. A. 1893 B, p. 564.

Talpavus nitidus Marsh.

Marsh, O. C. 1872 G, p. 128.

King, C. 1878 A, p. 403.
 Matthew, W. D. 1899 A, p. 42.
 Roger, O. 1896 A, p. 23.
 Trouessart, E. L. 1898 A, p. 208.
 Eocene (Bridger); Wyoming.

SORICIDÆ.

Baird, S. F. 1857 A, p. 7.
 Blainville, H. M. D. 1864 A, i, H, pls. ii, v, vii, viii, ix, x. (Genus *Sorex*.)
 Brandt, E. 1868 A, p. 76, pls i-vi. (Genus *Sorex*.)
 1870 A, p. 1. (Genus *Sorex*.)
 Flower, W. H. 1883 D, p. 408.
 Flower and Lydekker 1891 A, p. 621.
 Gervais, P. 1859 A, p. 54.
 Glebel, C. G. 1862 A, p. 222. ("Spitzmäuse.")
 Gill, T. 1872 B, p. 18.
 1875 A.
 Gill and Coues 1877 A, p. 1058.
 Leche, W. 1895 A, p. 47.

Merriam, C. H. 1895 C.
 Mivart, St. G. 1867 C, p. 289. (Genus *Sorex*.)
 Nicholson and Lydekker 1889 A, p. 1457.
 Owen, R. 1868 A, p. 305.
 Parker, W. K. 1868 A, p. 210, pl. xxviii, fig. 1-7.
 1885 B, p. 378.
 Peters, W. 1852 A, p. 220. ("Spitzmäuse.")
 Pomel, A. 1848 C, p. 248. ("Soricien.")
 Roger, O. 1896 A, p. 25.
 Schlosser, M. 1887 B, p. 120.
 Wortman, J. L. 1886 A, p. 426.
 Zittel, K. A. 1893 B, p. 567.

PROTOSOREX Scott. Type *P. crassus* Scott.

Scott, W. B. 1894 A, p. 446.

Protosorex crassus Scott.

Scott, W. B. 1894 A, p. 446.

Matthew, W. D. 1899 A, p. 55.
 Roger, O. 1896 A, p. 25.
 Trouessart, E. L. 1898 A, p. 186.
 Oligocene (White River); South Dakota.

BLARINA Gray. Type *Sorex talpoides* Gapper = *S. brevicaudus* Say.

Gray, J. E., 1837, Proc. Zool. Soc. Lond., p. 124.
 Baird, S. F. 1857 A, p. 36.
 Merriam, C. H. 1895 B, pp. 5, 9.
 For synonymy of this genus see Merriam as quoted.

Blarina simplicidens Cope.
 Cope, E. D. 1899 A, p. 219, text figure.
 Pleistocene; Pennsylvania.

LEPTICTIDÆ.

Cope, E. D. 1882 E, pp. 156, 157.
 1884 O, p. 259.
 1884 S, p. 347.
 1896 L, p. 966.
 Gill, T. 1872 B, p. 19.
 Matthew, W. D. 1899 A, p. 55.
 Nicholson and Lydekker 1889 A, p. 1459.

Roger, O. 1896 A, p. 22. (*Ictopidæ*.)
 Schlosser, M. 1886 C.
 1887 B, p. 140. (*Ictopidæ*.)
 Steinmann and Döderlein 1890 A, p. 710. (*Ictopidæ*.)
 Trouessart, E. L. 1898 A, p. 216. (*Ictopidæ*.)
 Zittel, K. A. 1893 B, p. 561. (*Ictopidæ*.)

¹ *Scalops aquaticus* has been reported by Dr. Leidy (1889 H, p. 5) from a cave in Pennsylvania in which a very large proportion of the animals found belong to species yet living in the vicinity.

Ictrops Leidy. Type *I. dakotensis* Leidy.

- Leidy, J.* 1868 J, p. 316.
Cope, E. D. 1881 D, p. 192.
 1882 E, p. 157.
 1884 O, pp. 259, 265, 801.
 1884 S, pp. 352, 478.
Leidy, J. 1871 C, p. 364.
Schlösser, M. 1887 B, p. 141.
Scott, W. B. 1892 A, p. 422.
Trouessart, E. L. 1898 A, p. 216.
Zittel, K. A. 1893 B, p. 216.

***Ictrops bullatus* Matth.**

- Matthew, W. D.* 1899 A, p. 55.
 Oligocene (White River); South Dakota.

***Ictrops dakotensis* Leidy.**

- Leidy, J.* 1868 J, p. 316.
Cope, E. D. 1884 O, pp. 266, 800.

- King, C.* 1878 A, p. 412.
Leidy, J. 1869 A, pp. 351, 408, pl. xxvi.
 1871 C, p. 364.
Matthew, W. D. 1899 A, p. 55.
Roger, O. 1896 A, p. 22.
Scott, W. B. 1892 A, p. 423.
Trouessart, E. L. 1898 A, p. 216.
 Oligocene (White River); South Dakota.

***Ictrops didelphoides* Cope.**

- Cope, E. D.* 1881 D, p. 192.
 1884 O, p. 268, pl. xxva, fig. 9.
Matthew, W. D. 1899 A, p. 35. (Palseictopsf.)
Roger, O. 1896 A, p. 22.
Schlösser, M. 1887 B, p. 142.
Trouessart, E. L. 1898 A, p. 216.
 Eocene (Wind River); Wyoming.

PALEICTOPS Matth. Type *Ictops bicuspis* Cope.

- Matthew, W. D.* 1899 A, p. 31.

***Palseictops bicuspis* (Cope).**

- Cope, E. D.* 1880 N, p. 746. (Stypolophus.)
 1881 D, p. 192. (Ictops.)
 1882 E, p. 160. (Ictops.)
 1884 O, p. 266, pl. lviii f, figs. 2, 3. (Ictops.)

- Cope, E. D.* 1884 S, p. 478, fig. 21. (Ictops.)
Matthew, W. D. 1899 A, p. 31.
Roger, O. 1896 A, p. 22. (Ictops.)
Trouessart, E. L. 1898 A, p. 216. (Ictops.)
Zittel, K. A. 1893 B, p. 561, fig. 470. (Ictops.)
 Eocene (Wasatch); Wyoming.

LEPTICTIS Leidy. Type *L. haydeni* Leidy.

- Leidy, J.* 1868 J, p. 315.
Bruce, A. T. 1883 A, p. 43, fig. 9.
Cope, E. D. 1874 B, p. 472.
 1882 E, p. 157.
 1884 O, pp. 260, 801.
 1884 S, p. 352.
 1886 L, p. 966.
Leidy, J. 1871 C, p. 364.
Schlösser, M. 1887 B, p. 141.
Scott, W. B. 1892 A, p. 422.
Wortman, J. L. 1893 A.
Zittel, K. A. 1893 B, p. 562.

***Leptictis haydeni* Leidy.**

- Leidy, J.* 1868 J, p. 315.
Cope, E. D. 1884 O, p. 800.
 1884 S, p. 478, fig. 22.
King, C. 1878 A, p. 412.
Leidy, J. 1869 A, pp. 345, 408, pl. xxvi, figs. 25-28.
 1871 C, p. 364.
Matthew, W. D. 1899 A, p. 55.
Roger, O. 1896 A, p. 22.
Schlösser, M. 1887 B, p. 141.
Zittel, K. A. 1893 B, p. 562, fig. 471.
 Oligocene (White River); South Dakota.

MESODECTES Cope. Type *M. caniculus* Cope.

- Cope, E. D.* 1875 C, p. 30.
 1873 T, p. 3. (Isaia, preoccupied.)
 1873 CC, p. 5. (Isaia.)
 1874 B, pp. 465, 470. (Isaia.)
 1882 E, p. 157.
 1884 O, pp. 259, 788, 801.
 1884 S, p. 352.
Matthew, W. D. 1899 A, p. 55.
Scott, W. B. 1892 A, p. 423.
Zittel, K. A. 1893 B, p. 562.

***Mesodectes caniculus* Cope.**

- Cope, E. D.* 1873 T, p. 3. (Isaia.)
 1873 CC, p. 8. (Isaia.)
 1874 B, p. 473. (Isaia.)
 1874 P, p. 23. (Isaia.)
 1884 O, p. 805, pl. lxii, figs. 33-50.
 1884 S, p. 478.
Matthew, W. D. 1899 A, p. 55.
Roger, O. 1896 A, p. 22.
Trouessart, E. L. 1898 A, p. 216.
 Oligocene (White River); Colorado.

GEOLABIS Cope. Type *G. rhynchæus* Cope.

- Cope, E. D.* 1884 O, p. 807.
Schlösser, M. 1887 B, p. 142.
Zittel, K. A. 1893 B, p. 562.

***Geolabis rhynchæus* Cope.**

- Cope, E. D.* 1884 O, p. 808, pl. lxii, figs. 30-32.

- Cope, E. D.* 1874 B, p. 479, fig. 22. (Domnina sp.)
Matthew, W. D. 1899 A, p. 55.
Roger, O. 1896 A, p. 22.
Trouessart, E. L. 1898 A, p. 217.
 Oligocene (White River); Colorado.

DIACODON Cope. Type *D. alticuspis* Cope.

Cope, *E. D.* 1875 C, p. 11.

1876 A, p. 3.

1877 K, p. 133.

1882 E, p. 157.

1884 O, pp. xxxv, 260, 713.

1884 S, p. 349.

Schlosser, M. 1887 B, p. 142. (Syn. of *Centetodon* Marsh.)

Zittel, K. A. 1893 B, p. 562.

Diacodon alticuspis Cope.

Cope, *E. D.* 1875 C, p. 12.

1877 K, p. 132, pl. xlv, fig. 19.

1884 S, p. 350, fig. 18a.

Matthew, W. D. 1899 A, p. 31.

Roger, O. 1896 A, p. 22.

Trouessart, E. L. 1898 A, p. 217.

Eocene (Wasatch); New Mexico.

Diacodon celatus Cope.

Cope, *E. D.* 1875 C, p. 12.

1877 K, p. 133, pl. xlv, fig. 20.

1884 S, p. 350, fig. 18b.

Matthew, W. D. 1899 A, p. 31.

Roger, O. 1896 A, p. 22.

Trouessart, E. L. 1898 B, p. 217.

Eocene (Wasatch); New Mexico.

CENTETODON Marsh. Type *C. pulcher* Marsh.

Marsh, *O. C.* 1872 I, p. 209.

Schlosser, M. 1887 B, p. 144.

Zittel, K. A. 1893 B, p. 362.

Centetodon altidens Marsh.

Marsh, *O. C.* 1872 I, p. 214.

Matthew, W. D. 1899 A, p. 41.

Roger, O. 1896 A, p. 23.

Trouessart, E. L. 1898 A, p. 217.

Eocene (Bridger); Wyoming.

Centetodon pulcher Marsh.

Marsh, *O. C.* 1872 I, p. 209.

King, C. 1878 A, p. 403.

Matthew, W. D. 1899 A, p. 41.

Roger, O. 1896 A, p. 22.

Trouessart, E. L. 1898 A, p. 217.

Eocene (Bridger); Wyoming.

PASSALACODON Marsh. Type *P. litoralis* Marsh.

Marsh, *O. C.* 1872 I, p. 208.

Schlosser, M. 1887 B, p. 143.

Zittel, K. A. 1887 B, p. 562.

Passalacodon litoralis Marsh.

Marsh, *O. C.* 1872 I, p. 208.

King, C. 1878 A, p. 403.

Matthew, W. D. 1899 A, p. 42.

Roger, O. 1896 A, p. 23.

Trouessart, E. L. 1898 B, p. 217.

Eocene (Bridger); Wyoming.

ANISACODON Marsh. Type *A. elegans* Marsh.

Marsh, *O. C.* 1872 I, p. 209.

Schlosser, M. 1887 B, p. 143.

Zittel, K. A. 1893 B, pp. 304, 308, 562.

Anisacodon elegans Marsh.

Marsh, *O. C.* 1872 I, p. 209.

Matthew, W. D. 1899 A, p. 42.

Roger, O. 1896 A, p. 23.

Trouessart, E. L. 1898 A, p. 217.

Eocene (Bridger); Wyoming.

CENTRACODON Marsh. Type *C. delicatus* Marsh.

Marsh, *O. C.* 1872 I, p. 215.

Schlosser, M. 1887 B, p. 143.

A genus of uncertain position.

Centracodon delicatus Marsh.

Marsh, *O. C.* 1872 I, p. 215.

Matthew, W. D. 1899 A, p. 42.

Roger, O. 1896 A, p. 23.

Trouessart, E. L. 1898 A, p. 218.

Eocene (Bridger); Wyoming.

ENTOMODON Marsh. Type *E. comptus* Marsh.

Marsh, *O. C.* 1872 I, p. 214.

Schlosser, M. 1887 B, p. 143.

Zittel, K. A. 1893 B, p. 562.

Entomodon comptus Marsh.

Marsh, *O. C.* 1872 I, p. 214.

Matthew, W. D. 1899 A, p. 42.

Roger, O. 1896 A, p. 23.

Trouessart, E. L. 1898 A, p. 218.

Eocene (Bridger); Wyoming.

ENTOMACODON. Type *E. minutus* Marsh.

Marsh, O. C. 1872 I, p. 214.
1877 E.

Schlosser, M. 1887 B, p. 143.
Zittel, K. A. 1893 B, p. 562.

Entomacodon angustidens Marsh.

Marsh, O. C. 1872 I, p. 214.
King, C. 1878 A, p. 403.
Matthew, W. D. 1899 A, p. 42.
Roger, O. 1896 A, p. 23.

Trouessart, E. L. 1896 A, p. 218.
Eocene (Bridger); Wyoming.

Entomacodon minutus Marsh.

Marsh, O. C. 1872 I, p. 222.
Matthew, W. D. 1899 A, p. 42.
Roger, O. 1896 A, p. 23.
Schlosser, M. 1887 B, p. 143.
Trouessart, E. L. 1896 A, p. 218.
Eocene (Bridger); Wyoming.

EURYACODON Marsh. Type *E. lepidus* Marsh.

Marsh, O. C. 1872 I, p. 223.
Schlosser, M. 1887 B, p. 218.

Euryacodon lepidus Marsh.

Marsh, O. C. 1872 I, p. 223.

Matthew, W. D. 1899 A, p. 42.
Roger, O. 1896 A, p. 23.
Trouessart, E. L. 1896 A, p. 218.
Eocene (Bridger); Wyoming.

ANOMODON Le Conte. Type *A. snyderi* Le Conte.

Le Conte, J. L. 1848 A, p. 106.
The position of this genus is doubtful. Roger and Trouessart (*loc. cit. infra*) assigned it to the Erinaceidae.

Anomodon snyderi Le Conte.

Le Conte, J. L. 1848 A, p. 106, fig. 8.
Cope, E. D. 1869 E, p. 175.

Leidy, J. 1856 T, p. 171, pl. xvii, figs. 25, 26.
1862 A.
1869 A, p. 408.
1870 H, p. 13.
Pictet, F. J. 1853 A, p. 179.
Roger, O. 1896 A, p. 27.
Trouessart, E. L. 1896 A, p. 178.
Pleistocene; northern Illinois.

DOMNINA Cope. Type *D. gradata* Cope.

Cope, E. D. 1873 T, p. 1.
1873 CC, p. 4 (Domnina); p. 5 (Miothen, type *M. crassigenis*).
1874 B, pp. 465, 469, 470.
1884 O, pp. 788, 810.
Matthew, W. D. 1899 A, p. 55.
Nicholson and Lydekker 1899 A, p. 1463.
Schlosser, M. 1887 D, p. 78.
Zittel, K. A. 1893 B, p. 562 (Syn.? of Geolabis); p. 578.

The relationships of this genus are doubtful.

Domnina crassigenis Cope.

Cope, E. D. 1873 CC, p. 8. (Miothen.)
1874 B, p. 470.

Cope, E. D. 1884 O, p. 811, pl. lxii, figs. 24-29.
Matthew, W. D. 1899 A, p. 55.
Roger, O. 1896 A, p. 30.
Trouessart, E. L. 1896 A, p. 106.
Oligocene (White River); Colorado.

Domnina gradata Cope.

Cope, E. D. 1873 T, p. 1.
1873 CC, p. 8.
1874 B, p. 469.
1884 O, p. 810, pl. lxii, figs. 25, 26.
Matthew, W. D. 1899 A, p. 55.
Roger, O. 1896 A, p. 30.
Trouessart, E. L. 1896 A, p. 106.
Oligocene (White River); Colorado.

Order CHIROPTERA.

Allen, H. 1880 A.
1882 A.
1886 A.
1898 A.

Blainville, H. M. D. 1864 A, I, G, pls. i-xv.

Cope, E. D. 1873 E, p. 644.
1880 B, p. 455.
1884 O, p. 167.
1888 D, p. 255.
1889 C, p. 143.
1889 R, pp. 875, 876.

Dobson, G. E. 1878 A.

Flower, W. H. 1876 B, xiii, p. 514.
1893 A.
1893 D, p. 405.
1896 A.

Flower and Lydekker 1891 A, p. 641.

Gadow, H. 1896 A, p. 52.
Gill, T. 1872 A, p. 302.
1872 B, pp. 16, 49.
Gill and Coues 1874 A, p. 1055.
Gruber, W. 1859 A.
Haeckel, E. 1895 A, pp. 593, 595.
Hay, O. P. 1899 F, p. 682.

Huxley, T. H. 1870 A, p. 440.
1872 A, p. 385.

Leboucq, H. 1896 A.

Leche, W. 1877 A.

1896 A, p. 74.

Lydekker, R. 1896 B.

Marsh, O. C. 1877 E.

Nicholson and Lydekker 1899 A, p. 1459.

Osborn, H. F. 1893 A, p. 387.
1893 D, p. 12.
Owen, R. 1843 A, p. 56.
1845 B, p. 424.
Parker, W. K. 1868 A, p. 214.
1885 A, p. 188.
1896 A.
Roger, O. 1896 A, p. 28.
Ryder, J. A. 1878 A, p. 48.
Schlosser, M. 1887 B, p. 55.

Schlosser, M. 1889 A.
1890 A.
1890 C, p. 269.
Slade, D. D. 1888 A, p. 242.
Tomes, C. S. 1896 A, p. 496.
Trouessart, E. L. 1898 A, p. 77.
Weyhe, — 1875 A, p. 102.
Winge, H. 1893 A.
1893 B.
Zittel, K. A. 1893 B, pp. 572, 729.

VESPERTILIONIDÆ.

Allen, H. 1893 A, p. 53.
Blainville, H. M. D. 1864 A, i, G, p. 71.
Flower, W. H. 1883 D, p. 410.
Flower and Lydekker 1891 A, p. 660.
Miller, G. S. 1897 A.
Nicholson and Lydekker 1889 A, p. 1461.

Roger, O. 1896 A, p. 28.
Trouessart, E. L. 1898 A, p. 103.
Winge, H. 1893 A, p. 34.
1893 B, p. 82.
Zittel, K. A. 1893 B, p. 577.

PIPISTRELLUS Kaup. Type *Vespertilio pipistrellus* Schreber.

Allen, H. 1893 A, p. 121. (*Vesperugo*.)
Cope, E. D. 1884 O, p. 373. (*Vesperugo*.)
Dobson, G. E. 1878 A, p. 183. (*Vesperugo*, part.)
Flower and Lydekker 1891 A, p. 661. (*Vesperugo*, part.)
Miller, G. S. 1897 A, p. 87. (*Pipistrellus*.)
Nicholson and Lydekker 1889 A, p. 1461. (*Vesperugo*.)
Zittel, K. A. 1893 B, p. 578. (*Vesperugo*.)

Pipistrellus anemophilus (Cope).

Cope, E. D. 1880 N, p. 745. (*Vesperugo*.)
1881 D, p. 184. (*Vesperugo*.)
1884 O, p. 374. (*Vesperugo*.)
Matthew, W. D. 1899 A, p. 35. (*Vesperugo*.)
Roger, O. 1896 A, p. 29. (*Vesperugo*.)
Trouessart, E. L. 1898 A, p. 115. (*Vesperugo*.)
Eocene (Wind River); Wyoming.

VESPERTILIO Linn. Type *V. murinus* Linn.

Linnaeus, C., 1858, Syst. Nat., ed. 10, i, p. 31.
Allen, H. 1893 A, p. 111. (*Adelonycteris*.)
Dobson, G. E. 1878 A, p. 183. (*Vesperugo*, part.)
Flower and Lydekker 1891 A, p. 661. (*Vesperugo*, in part.)
Miller, G. S. 1897 A, p. 95.

Vespertilio fuscus Beauvois.

Beauvois, 1796, Cat. Peale's Mus., p. 14.
Allen, H. 1893 A, p. 112. (*Adelonycteris*.)

Dobson, G. E. 1878 A, p. 198. [*Vesperugo* (*Vesperus*).]
Leidy, J. 1889 H, p. 51.
Mercer, C. H. 1897 A. (*Adelonycteris*.)
Miller, G. S. 1897 A, p. 96, fig. 24, b.
Trouessart, E. L. 1898 A, p. 106. [*Vesperugo* (*Vesperus*).]
Recent; Georgia to California and northward.
Pleistocene?; cave in Tennessee.

NYCTITHERIUM Marsh. Type *N. velox* Marsh.

Marsh, O. C. 1872 G, p. 127.
1877 E.
Miller, G. S. 1897 A, p. 16.
Nicholson and Lydekker 1889 A, p. 1461. (Syn. of *Vesperugo*.)
Zittel, K. A. 1893 B, p. 578.

Nyctitherium priscum Marsh.

Marsh, O. C. 1872 G, p. 128.
King, C. 1878 A, p. 403.
Matthew, W. D. 1899 A, p. 42.
Miller, G. S. 1897 A, p. 38.

Trouessart, E. L. 1898 A, p. 106.
Eocene (Bridger); Wyoming.

Nyctitherium velox Marsh.

Marsh, O. C. 1872 G, p. 127.
King, C. 1878 A, p. 403.
Matthew, W. D. 1899 A, p. 42.
Miller, G. S. 1897 A, p. 37.
Roger, O. 1896 A, p. 30.
Trouessart, E. L. 1898 A, p. 106.
Eocene (Bridger); Wyoming.

NYCTILESTES Marsh. Type *N. serotinus* Marsh.

Marsh, O. C. 1872 I, p. 215.
1877 E.
Miller, G. S. 1897 A, p. 16.
Nicholson and Lydekker 1889 A, p. 1461.
Zittel, K. A. 1893 B, p. 578.

Nyctilestes serotinus Marsh.

Marsh, O. C. 1872 I, p. 215.

King, C. 1878 A, p. 403.
Matthew, W. D. 1899 A, p. 42.
Miller, G. S. 1897 A, p. 35.
Roger, O. 1896 A, p. 30.
Trouessart, E. L. 1898 A, p. 106.
Eocene (Bridger); Wyoming.

¹ *V. subulatus* has been reported by Dr. Leidy (loc. cit.) from the same cave.

Order FERÆ Linnæus.

Linnaeus, C., 1758, Syst. Nat., ed. 10, i, p. 37.

Unless otherwise indicated, the following authors apply the name *Carnivora* to this order.

Albrecht, P. 1879 A.

Allen, J. A. 1880 A.

Ameghino, F. 1889 A, p. 296.

Baird, S. F. 1857 A, p. 78.

Baur, G. 1890 B.

Blainville, H. M. D. 1864 A, II, with 117 plates.

Cope, E. D. 1873 E, p. 646.

1875 C, p. 25.

1876 A.

1879 G.

1880 B, p. 455.

1881 J, p. 545.

1884 E.

1884 O, pp. 263, 888.

1887 S, pp. 264, 343.

1888 D.

1888 I, p. 6.

1889 C.

1889 R, p. 875.

Cuvier, G. 1834 A, v, p. 486; vii.

Filhol, H. 1883 A.

Flower, W. H. 1869 A, p. 269.

1869 B, p. 4.

1876 B, xiii, p. 487.

1883 D, p. 432.

1885 A.

Flower and Lydekker 1891 A, p. 496.

Gadow, H. 1898 A, p. 50.

Gill, T. 1872 A, p. 297. (Feræ.)

1872 B, pp. 47, 56. (Feræ.)

Gaudry, A. 1878 B, p. 209.

Gray, J. E. 1869 A, p. 2.

Gruber, W. 1859 A.

Haeckel, E. 1896 S, pp. 578, 584.

Hay, O. P. 1899 F, p. 682.

Humphreys, J. 1849 A, p. 142.

Huxley, T. H. 1872 A, p. 350.

Kittl, E. 1887 A.

Kollmann, J. 1888 A.

Lydekker, R. 1885 B, p. 20.

1896 B.

Marsh, O. C. 1877 E.

Mivart, St. G. 1881 A, p. 473.

Osborn, H. F. 1900 C, p. 568.

1892 I.

Owen, R. 1845 B, p. 473.

1851 C, p. 729.

1866 B, p. 487.

1868 A, p. 327.

Parker, W. K. 1868 A, p. 215.

1885 A, p. 198.

Parsons, F. G. 1899 A.

1900 A.

Paulll, S. 1900 B, p. 489.

Scheidt, P. 1894 A.

Schlosser, M. 1886 C.

1888 B.

1889 A.

1890 A.

1890 C.

1890 D.

1892 A, p. 217.

Scott, W. B. 1888 A.

1892 A, p. 424.

Slade, D. D. 1888 A, p. 243.

Steinmann and Döderlein 1890 A, p. 716.

Tims, H. W. M. 1896 B, p. 461.

Tomes, C. S., 1898 A, p. 459.

Turner, H. N. 1848 A.

Waterhouse, G. R. 1839 A.

Weber, M. 1886 A, p. 227.

Weyhe, — 1875 A, p. 116.

Winge, H. 1896 B. (Carnivora vera.)

Woodward, A. S. 1895 H, p. 380.

Wortman, J. L. 1886 A, p. 448.

Wortman and Matthew 1899 A, p. 109.

Zittel, K. A. 1893 B, pp. 578, 606, 678, 731.

Suborder CREODONTA Cope.

Cope, E. D. 1876 A, p. 3.

Ameghino, F. 1889 A, pp. 285, 298.

1891 C, p. 214.

Cope, E. D. 1875 C, p. 23. (Bunotheriidae, in part.)

1876 E. (Bunotheria, in part.)

1877 K, p. 72 (Bunotheria, in part); pp. 85, 87 (Creodonta).

1877 S. (Bunotheria, in part.)

1880 C.

1881 B.

1882 E, p. 156.

1883 I (Bunotheria, in part); p. 78 (Creodonta).

1884 E.

1884 L.

1884 O, pp. 185, 251, 738 (Creodonta); pp. 167, 185, 737, 800 (Bunotheria, in part).

1884 S.

1885 U.

1886 L.

1887 M.

1887 S, p. 343.

Cope, E. D. 1888 D.

1888 K.

1888 CC, p. 308.

1889 C. (Bunotheria, in part; Creodonta.)

1889 R. (Bunotheria, in part; Creodonta.)

1891 N, p. 72. (Bunotheria, in part; Creodonta.)

1898 B, p. 114 (Creodonta); pp. 106, 114 (Bunotheria).

Earle, C. 1898 A, p. 261.

Flower and Lydekker 1891 A, p. 606.

Gadow, H. 1898 A, p. 50.

Hay, O. P. 1899 F, p. 682.

Ihering, H. 1891 A, p. 209.

Lemoine, V. 1880 A, p. 586.

Lydekker, R. 1885 E, p. 471.

1887 A, p. viii. (Bunotheria, in part.)

1900 A, p. 924.

Matthew, W. D. 1899 A, p. 28.

Nicholson and Lydekker 1889 A, p. 1449.

Osborn, H. F. 1888 F.

1892 I.

- Osborn, H. F. 1893 D.
 1894 A, p. 236. (Bunotheria, in part.)
 1898 A, p. 146.
 1898 H, p. 174.
 1899 B, p. 93.
 1900 C, p. 567.
- Osborn and Wortman 1892 A, p. 103.
- Roger, O. 1896 A, p. 30.
- Rütimeyer, L. 1898 A.
 1891 A, p. 93.
- Schlosser, M. 1886 C.
 1887 A.
 1887 B, p. 162.
 1888 A, p. 584.
 1889 A.
 1890 A.
 1890 C.
 1890 D.
- Schlosser, M. 1892 A.
- Scott, W. B. 1888 B.
 1890 A.
 1891 B, p. 366.
 1892 A, p. 418.
 1892 B.
 1892 D.
 1895 F, p. 719.
- Slade, D. D. 1890 A.
- Steinmann and Döderlein 1890 A, p. 711.
- Trouessart, E. L. 1898 A, p. 219.
- Winge, H. 1895 B, p. 46. (Carnivora primitiva.)
- Woodward, A. S. 1898 B, p. 380.
- Wortman, J. L. 1885 A, p. 298. (Bunotheria, in part; Creodonta.)
- Wortman and Matthew 1899 A, p. 109.
- Zittel, K. A. 1898 B, pp. 579, 605, 725.

OXYCLÆNIDÆ.

- Scott, W. B. 1892 B, p. 294.
- Earle, C. 1896 A, p. 261. (Chriacidae.)
- Matthew, W. D. 1897 C, p. 265 (Chriacidae); p. 267 (Oxyclænidae.)
 1899 A, pp. 28, 29.
- Osborn and Earle 1896 A, p. 20.
- Roger, O. 1896 A, p. 32.
- Scott, W. B. 1892 D, p. 77.
- Trouessart, E. L. 1898 A, p. 219. (Includes Chriacidae.)
- Zittel, K. A. 1898 B, p. 584.

OXYCLÆNUS Cope. Type *Mioclænus cuspidatus* Cope.

- Cope, E. D. 1884 K, p. 312.
 1888 CC, p. 320, footnote.
- Matthew, W. D. 1897 C, pp. 268, 276.
- Scott, W. B. 1892 A, p. 419.
 1892 B, p. 295.
 1892 D, p. 77.
- Zittel, K. A. 1898 B, p. 584.
- Oxyclænus cuspidatus** Cope.
 Cope, E. D. 1884 K, p. 312. (Mioclænus, Oxyclænus.)
 1888 CC, p. 321. (Mioclænus.)
- Matthew, W. D. 1897 C, p. 276.
 1899 A, p. 28.
- Osborn and Earle 1896 A, p. 23. (Protochriacus simplex?)
- Roger, O. 1896 A, p. 32.
- Scott, W. B. 1892 B, p. 295.
- Trouessart, E. L. 1898 A, p. 219.
 Eocene (Puerco); New Mexico.
- Oxyclænus simplex** Cope.
 Cope, E. D. 1884 K, pp. 314, 315. (Chriacus.)
 1888 CC, p. 336. (Chriacus.)
- Matthew, W. D. 1897 C, p. 277, fig. 8.
 1899 A, p. 28.
- Roger, O. 1896 A, p. 249. (Protochriacus.)
- Scott, W. B. 1892 B, p. 296. (Protochriacus.)
 Eocene (Puerco); New Mexico.

CHRIACUS Cope. Type *Pelycodus pelvidens* Cope.

- Cope, E. D. 1883 I, p. 80.
 1884 K, p. 312.
 1884 O, p. 740.
 1884 S, p. 352.
 1888 CC, p. 336.
- Earle, C. 1898 A, p. 261.
- Matthew, W. D. 1897 C, p. 272.
- Osborn and Earle 1896 A, p. 21.
- Schlosser, M. 1887 B, p. 49.
- Scott, W. B. 1892 A, p. 421, fig. 4.
 1892 B, p. 296 (Chriacus); p. 296 (Epichriacus, type *C. schlosserianus*).
 1892 D, p. 77.
- Steinmann and Döderlein 1890 A, p. 712.
- Zittel, K. A. 1898 B, p. 585. (Chriacus, Epichriacus.)
- Chriacus angulatus** Cope.
 Cope, E. D. 1875 C, p. 14. (Pelycodus.)
 1877 K, p. 144, pl. xxxix, fig. 15. (Tomtherium.)
 1882 E, p. 151. (Pelycodus.)
 1883 I, p. 80. (Chriacus.)
 1884 K, p. 314.
 1884 O, pp. 225, 231, pl. xxivd, fig. 4 (Pelycodus); p. 740 (Chriacus).
 1884 S, p. 353, fig. 14.
- Matthew, W. D. 1899 A, p. 30. (Pelycodus.)
- Roger, O. 1896 A, p. 250.
- Scott, W. B. 1892 B, p. 296.
- Trouessart, E. L. 1898 A, p. 220.
 Eocene (Wasatch); New Mexico, Wyoming.

Chriacus baldwini Cope.

- Cope, E. D. 1882 C, p. 463. (Deltatherium.)
 1884 K, p. 314, in part. (C. pelvidens.)
 1884 O, p. 282, pl. xxliid, fig. 12 (Deltatherium); p. 225, in part, pl. xxivd, fig. 3 (Pelycodus pelvidens).
 1888 CC, pp. 304, 340, in part (C. baldwini); p. 304, in part (C. pelvidens).
 Matthew, W. D. 1897 C, pp. 268, 274, figs. 5, 6.
 1899 A, p. 29.
 Osborn and Earle 1896 A, p. 21.
 Roger, O. 1896 A, p. 250.
 Scott, W. B. 1892 B, p. 296.
 Trouessart, E. L. 1898 A, p. 220.
 Eocene (Torrejon); New Mexico.

Chriacus pelvidens Cope.

- Cope, E. D. 1881 Z, p. 1019. (Lipodectes.)
 1882 C, p. 462. (Pelycodus.)
 1882 E, p. 151. (Pelycodus.)
 1883 I, p. 80.
 1884 K, p. 313, part.
 1884 O, p. 225, in part (Pelycodus); p. 740 (Chriacus).
 1888 CC, pp. 304, 336, in part.
 Matthew, W. D. 1897 C, pp. 263, 273, fig. 4.
 1899 A, p. 29.
 Roger, O. 1896 A, p. 250.
 Trouessart, E. L. 1898 A, p. 220.
 Eocene (Torrejon); New Mexico.

Chriacus schlosserianus Cope.

- Cope, E. D. 1888 CC, p. 338.
 Matthew, W. D. 1897 C, pp. 263, 268, 275.
 1899 A, p. 29.
 Roger, O. 1896 A, p. 249. (Epichriacus.)
 Scott, W. B. 1892 A, p. 421. (Epichriacus.)
 1892 B, p. 296. (Epichriacus.)
 1892 D, p. 77. (Epichriacus.)
 Trouessart, E. L. 1898 A, p. 220. (Epichriacus.)
 Eocene (Torrejon); New Mexico.

Chriacus stenops Cope.

- Cope, E. D. 1888 CC, p. 341.
 Matthew, W. D., 1899 A, p. 29. (Syn. of C. pelvidens.)
 Roger, O. 1896 A, p. 250.
 Scott, W. B. 1892 A, p. 421.
 1892 B, p. 296.
 Trouessart, E. L. 1898 A, p. 220.
 Eocene (Torrejon); New Mexico.

Chriacus truncatus Cope.

- Cope, E. D. 1884 K, p. 313.
 1888 CC, pp. 304, 336, fig. 8.
 Matthew, W. D. 1897 C, pp. 263, 275, fig. 7.
 1899 A, p. 29.
 Roger, O. 1896 A, p. 250.
 Trouessart, E. L. 1898 A, p. 220.
 Eocene (Torrejon); New Mexico.

PENTACODON Scott. Type *Chriacus inversus* Cope.

- Scott, W. B. 1892 B, p. 296.
 1892 D, p. 77.
 Zittel, K. A. 1893 B, p. 585.

Pentacodon inversus (Cope).

- Cope, E. D. 1888 CC, p. 342. (Chriacus.)

- Roger, O. 1896 A, p. 250.
 Scott, W. B. 1892 B, p. 297.
 Trouessart, E. L. 1898 A, p. 220.
 Eocene (Puerco); New Mexico.

LOXOLOPHUS Cope. Type *L. adapinus* Cope = *Chriacus hyattianus* Cope.

- Cope, E. D. 1885 J, p. 386.
 Hay, O. P. 1899 A, p. 593.
 Matthew, W. D. 1897 C, p. 268. (Protochriacus.)
 Osborn and Earle 1896 A, p. 22.
 Scott, W. B. 1892 B, p. 296 (Protochriacus, type *P. priscus*); p. 297 (Loxolophus).
 1892 D, p. 77. (Protochriacus, Loxolophus.)
 Zittel, K. A. 1893 B, p. 585. (Protochriacus, Loxolophus.)

Loxolophus attenuatus (Osb. and Earle).

- Osborn and Earle 1896 A, p. 22. (Protochriacus.)
 Matthew, W. D. 1897 C, pp. 263, 269. (Protochriacus.)
 1899 A, p. 28.
 Roger, O. 1896 A, p. 249. (Protochriacus.)
 Trouessart, E. L. 1898 A, p. 220. (Protochriacus.)
 Eocene (Puerco); New Mexico.

Loxolophus hyattianus (Cope).

- Cope, E. D. 1885 J, p. 385 (Chriacus hyattianus); p. 386 (*L. adapinus*).

- Cope, E. D. 1888 CC, pp. 304, 336. (Chriacus.)
 Matthew, W. D. 1897 C, pp. 263, 268, 269, fig. 2. (Protochriacus.)
 1899 A, p. 28. (Protochriacus hyattianus, *Loxolophus adapinus*.)
 Roger, O. 1896 A, p. 249 (Protochriacus); p. 250 (Loxolophus).
 Scott, W. B. 1892 B, p. 297.
 Trouessart, E. L. 1898 A, p. 220.
 Eocene (Puerco); New Mexico.

Loxolophus priscus (Cope).

- Cope, E. D. 1888 CC, p. 337, text fig. 6. (Chriacus.)
 Matthew, W. D. 1897 C, pp. 263, 269. (Protochriacus.)
 1899 A, p. 28.
 Osborn and Earle 1896 A, p. 22. (Protochriacus.)
 Roger, O. 1896 A, p. 249. (Protochriacus.)
 Scott, W. B. 1892 B, p. 296. (Protochriacus.)
 Trouessart, E. L. 1898 A, p. 220. (Protochriacus.)
 Zittel, K. A. 1893 B, p. 585, fig. 489. (Protochriacus.)
 Eocene (Puerco); New Mexico.

TRICENTES Cope. Type *T. crassicolldens* Cope.

Cope, E. D. 1884 K, p. 315.

1884 O, p. xxxv.

1884 R, p. 60.

1884 S, p. 358.

1885 K, p. 464.

Matthew, W. D. 1897 C, p. 270.

Osborn and Earle 1895 A, p. 28.

Scott, W. B. 1892 B, p. 297.

1892 D, p. 77.

Zittel, K. A. 1893 B, p. 585.

Tricentes crassicolldens Cope.

Cope, E. D. 1884 K, p. 315.

1884 R, p. 61.

1888 CC, p. 304.

Matthew, W. D. 1897 C, pp. 263, 272.

1899 A, p. 29.

Roger, O. 1896 A, p. 250.

Trouessart, E. L. 1898 A, p. 221.

Eocene (Torrejon); New Mexico.

Tricentes subtrigonus Cope.

Cope, E. D. 1881 H, p. 491 (*Mioclenus subtrigonus*); p. 492 (*Phenacodus zunienensis*).

1883 M, p. 555. (*Mioclenus subtrigonus*, *M. bucculentus*.)

Cope, E. D. 1884 K, pp. 312, 315, 316.

1884 O, pp. 325, 328, pl. xxivf, fig. 4; pl. lviiif, fig. 6 (*M. subtrigonus*); pp. 325, 341, pl. xxivg, fig. 2 (*M. bucculentus*); pp. 433, 491, pl. lvilf, fig. 10 (*Phenacodus zunienensis*).

1884 R, p. 61. (*Tricentes subtrigonus*, *T. bucculentus*.)

1884 S, p. 349, fig. 17. (*M. subtrigonus*.)

1888 CC, pp. 303, 321 (*M. subtrigonus*); pp. 303, 336, fig. 7 (*T. bucculentus*); pp. 304, 340 (*Chriacus baldwini*, in part); pp. 305, 359 (*Protoponia zunienensis*, in part).

Matthew, W. D. 1897 C, pp. 263, 270, fig. 3; p. 310.

1899 A, p. 29.

Osborn and Earle 1895 A, p. 24. (*Tricentes bucculentus*.)

Roger, O. 1896 A, p. 165 (*Euprotogonia zunienensis*); p. 250 (*Tricentes bucculentus*, *T. subtrigonus*).

Schlosser, M. 1887 B, p. 221. (*Mioclenus subtrigonus*, *M. bucculentus*.)

Scott, W. B. 1892 B, pp. 297, 299.

Trouessart, E. L. 1898 A, p. 221. (*T. bucculentus*, *T. subtrigonus*.)

Eocene (Torrejon); New Mexico.

The above synonymy is based on Matthew, W. D., 1897 C.

ELLIPSODON Scott. Type *Tricentes inaequidens* (Cope.)

Scott, W. B. 1892 B, p. 298.

1892 D, p. 77.

Ellipsodon inaequidens (Cope):

Cope, E. D. 1884 K, p. 317. (*Tricentes*.)

1888 CC, pp. 304, 336, fig. 8 (*Tricentes*); p. 335 (*Mioclenus minimus*).

Matthew, W. D. 1897 C, pp. 263, 315, fig. 17. (*Mioclenus*.)

Roger, O. 1896 A, p. 250.

Scott, W. B. 1892 B, p. 298.

Trouessart, E. L. 1898 A, p. 221 (*Ellipsodon*); p. 719 (*Mioclenus*).

Eocene (Torrejon); New Mexico.

ARCTOCYONIDÆ.

Cope, E. D. 1877 K, p. 90.

1880 C, p. 78.

1882 E, pp. 156, 167.

1883 I, p. 78.

1884 O, p. 259.

1885 K, p. 469.

Flower and Lydekker 1891 A, p. 609.

Gill, T. 1872 B, pp. 59, 68.

Matthew, W. D. 1897 C, p. 288.

Osborn and Wortman 1892 A, p. 115.

Roger, O. 1896 A, p. 32.

Schlosser, M. 1887 B, p. 219.

Scott, W. B. 1892 A, p. 420.

1892 B, pp. 295, 298.

1892 D, pp. 77, 78.

Trouessart, E. L. 1898 A, p. 222.

Winge, H. 1895 B, pp. 46, 51.

Zittel, K. A. 1893 B, p. 586.

ARCTOCYON Blainv. Type *A. primævus* Blainv.

Blainville, H. M. D. 1864 A (1841), II, L, p. 78.

No American species belonging to *Arctocyon* are known. The following citations are, however, given to the literature of the genus, since it is the type of the family.

Cope, E. D. 1880 C, p. 79.

1882 E, p. 157.

1884 O, p. 259.

Gaudry, A. 1878 B, p. 22.

Gervais, P. 1859 A, p. 220.

Lemoine, V. 1878 A.

1882 B.

1891 A, p. 272.

Osborn, H. F. 1883 A, p. 82.

1890 C, p. 59, fig. 4.

Schlosser, M. 1887 B, p. 221.

Trouessart, E. L. 1898 A, p. 222.

Winge, H. 1895 B, pp. 46, 91.

Woodward, A. S. 1898 B, p. 381.

Zittel, K. A. 1893 B, p. 586.

CLÆNODON Scott. Type *Mioclænus ferox* Cope.

Scott, W. B. 1892 B, p. 298.

Matthew, W. D. 1897 B, p. 232.

1897 C, p. 288.

1898 A, p. 890.

Osborn and Earle 1896 A, p. 26.

Scott, W. B. 1892 A, p. 420.

1892 D, p. 78.

Winge, H. 1896 B, pp. 46, 100, 101.

Zittel, K. A. 1893 B, p. 587.

Clænodon corrugatus (Cope).

Cope, E. D. 1883 M, p. 557. (*Mioclænus*.)

1883 W, p. 191. (*M. meniscus*, no description.)

1884 K, p. 312 (*Mioclænus*); p. 313 (*Oxyclænus*).

1884 O, pp. 325, 341, pl. xxivf, fig. 5. (*Mioclænus corrugatus*); pl. xxivg, fig. 8 (*M. ferox*).

1884 S, p. 349. (*Mioclænus*.)

1887 S, p. 275, pl. vii, fig. 1. (*Mioclænus*.)

1888 CC, p. 332. (*Mioclænus*.)

1889 C, p. 349. (*Mioclænus*.)

Matthew, W. D. 1897 C, pp. 264, 290, 320.

1899 A, p. 29.

Roger, O. 1896 A, p. 32.

Schlosser, M. 1887 B, p. 221.

Scott, W. B. 1892 B, p. 299.

Trouessart, E. L. 1898 A, p. 223.

Zittel, K. A. 1893 B, p. 587, fig. 493.

Eocene (Torrejon); New Mexico.

Clænodon ferox (Cope).

Cope, E. D. 1883 M, p. 547. (*Mioclænus*.)

1884 K, p. 312 (*Mioclænus*); p. 313 (*Oxyclænus*.)

1884 O, pp. 325, 328, pl. xxivf, figs. 6, 7, 9-15 (not fig. 8, *Idæ* Cope). (*Mioclænus*.)

1884 S, p. 350. (*Mioclænus*.)

1888 CC, pp. 303, 321. (*Mioclænus*.)

Matthew, W. D. 1897 C, pp. 264, 289, 320.

1899 A, p. 29.

Osborn and Earle 1896 A, p. 27.

Roger, O. 1896 A, p. 32.

Schlosser, M. 1887 B, p. 221.

Trouessart, E. L. 1898 A, p. 222.

Eocene (Torrejon); New Mexico.

Clænodon protogonioides (Cope).

Cope, E. D. 1882 EE, p. 883. (*Mioclænus*.)

1884 K, p. 312. (*Mioclænus*.)

1884 O, pp. 325, 340, pl. xxv, fig. 17. (*Mioclænus*.)

1888 CC, p. 329. (*Mioclænus*.)

Matthew, W. D. 1897 C, pp. 264, 291.

1899 A, p. 29.

Roger, O. 1896 A, p. 32.

Schlosser, M. 1887 B, p. 221. (*Mioclænus*.)

Scott, W. B. 1892 A, p. 420, fig. 4.

1892 B, p. 299.

Trouessart, E. L. 1898 A, p. 223.

Eocene (Puerco and Torrejon); New Mexico.

ANACODON Cope. Type *A. ursidens* Cope.

Cope, E. D. 1882 E, pp. 178, 181.

1882 F, p. 96.

1884 O, pp. 386, 427.

Osborn, H. F. 1893 D.

Osborn and Earle 1896 A, p. 27.

Osborn and Wortman 1892 A, p. 115.

Pavlov, M. 1887 A.

Scott, W. B. 1892 B, p. 300.

1892 D, p. 78.

Wortman, J. L. 1882 B, p. 775.

Zittel, K. A. 1893 B, p. 568.

Anacodon ursidens Cope.

Cope, E. D. 1882 E, p. 181.

1884 O, p. 427, pl. xxve, fig. 11.

1884 AA, p. 900, fig. 23.

Matthew, W. D. 1899 A, p. 31.

Osborn and Wortman 1892 A, p. 115, fig. 131.

Roger, O. 1896 A, p. 33.

Trouessart, E. L. 1898 A, p. 223.

Eocene (Wasatch); Wyoming.

TRIISODONTIDÆ.

Scott, W. B. 1892 B, pp. 294, 300.

Matthew, W. D. 1897 C, p. 277.

1899 A, pp. 28, 29.

Roger, O. 1896 A, p. 33.

Scott, W. B. 1892 A, p. 421.

Scott, W. B. 1892 D, pp. 77, 78.

Trouessart, E. L. 1898 A, p. 223.

Wortman, J. L. 1899 A, p. 146. (Subfamily of Mesonychidæ.)

Zittel, K. A. 1893 B, p. 588.

TRIISODON Cope. Type *T. quivirensis* Cope.

Cope, E. D. 1881 S, p. 667.

1881 H, p. 484.

1882 E, p. 157.

1882 H, p. 299.

1884 K, p. 311.

1884 O, pp. 260, 270.

1884 S, p. 349.

1887 Q.

Matthew, W. D. 1897 C, p. 278.

Scott, W. B. 1892 A, p. 420.

1892 B, p. 300.

1892 D, p. 78.

Schlosser, M. 1887 B, p. 209.

Winge, H. 1896 B, pp. 46, 51.

Wortman, J. L. 1899 A, p. 147.

Zittel, K. A. 1893 B, p. 588.

Triisodon gaudrianus (Cope).

Cope, E. D. 1888 CC, pp. 303, 326. (Mioclenus.)

Matthew, W. D. 1897 C, p. 280.

1899 A, p. 28.

Roger, O. 1896 A, p. 33. (T. gaudrianus.)

Scott, W. B. 1892 B, p. 302. (Goniacodon.)

Trouessart, E. L. 1896 A, p. 224. (Goniacodon.)

Eocene (Puerco); New Mexico.

Triisodon heilprinianus Cope.

Cope, E. D. 1882 E, p. 198.

1882 C, p. 468. (Conoryctes crassiscuspis.)

1884 K, p. 310 (T. rusticus); p. 311 (T. heilprinianus).

1884 O, p. 201, pl. xxliid, fig. 6 (Conoryctes crassiscuspis); pp. 271, 273, pl. xxviii, fig. 2 (T. heilprinianus.)

1885 J, p. 386. (Sarcotbraustes coryphaea.)

1888 CC, pp. 303, 321 [Mioclenus (Goniacodon) heilprinianus]; pp. 303, 321 [Mioclenus bathygnathus, M. rusticus]; pp. 303, 323 [Mioclenus crassiscuspis]; pp. 304, 343 (T. biculminatus); p. 323, figs. 1-4 (Sarcotbraustes coryphaea).

Matthew, W. D. 1897 C, pp. 263, 279, 320.

1899 A, p. 28.

Osborn and Earle 1895 A, p. 28, fig. 7 (T. biculminatus); p. 29 (Sarcotbraustes coryphaea, S. crassiscuspis).

Roger, O. 1896 A, p. 33 (T. heilprinianus, T. biculminatus, T. rusticus, Sarcotbraustes coryphaea, S. bathygnathus); p. 34 (S. crassiscuspis).

Schlosser, M. 1886 B, p. 37. (Zetodon crassiscuspis.)

Scott, W. B. 1892 B, p. 300 (T. heilprinianus); p. 302 (Goniacodon rusticus); p. 303 (Sarcotbraustes crassiscuspis, S. bathygnathus).

1897 A, p. 3. (Mioclenus bathygnathus.)

Trouessart, E. L. 1896 A, p. 224 (T. heilprinianus); p. 223 (T. biculminatus); p. 224 (Sarcotbraustes coryphaea); p. 225 (S. bathygnathus; S. crassiscuspis).

Eocene (Puerco); New Mexico.

The above synonymy is based on Matthew, W. D., 1897 C.

Triisodon quivirensis Cope.

Cope, E. D. 1881 S, p. 667.

1881 G, p. 465.

1884 K, p. 311.

1884 O, pp. 271, 272, pl. xxv, fig. 2.

1884 S, pp. 257, 350, fig. 1.

1888 CC, p. 304.

Matthew, W. D. 1897 C, p. 279.

1899 A, p. 28.

Roger, O. 1896 A, p. 33.

Scott, W. B. 1892 B, p. 301.

Trouessart, E. L. 1896 A, p. 223.

Wortman, J. L. 1886 A, p. 423 fig. 206.

Eocene (Puerco); New Mexico.

GONIACODON Cope. Type *G. levisanus* Cope.

Cope, E. D. 1888 CC, pp. 320, 321. (Subgenus.)

Matthew, W. D. 1897 C, pp. 278, 281.

1899 A, p. 29.

Scott, W. B. 1892 B, p. 301.

1892 D, p. 78.

Zittel, K. A. 1893 B, p. 589.

Goniacodon levisanus (Cope).

Cope, E. D. 1883 M, p. 546. (Trisodon.)

1884 K, p. 311. (Trisodon.)

Cope, E. D. 1884 O, pp. 271, 273, pl. xxiv, fig. 3 (Trisodon.)

1888 CC, pp. 303, 321. [Mioclenus (Goniacodon).]

Matthew, W. D. 1897 C, pp. 263, 282.

Roger, O. 1896 A, p. 33.

Scott, W. B. 1892 B, 302.

Trouessart, E. L. 1896 A, p. 224.

Eocene (Torrejon); New Mexico.

MIOCLENODON Scott. Type *Triisodon assurgens* Cope.

Scott, W. B. 1892 B, p. 302.

1892 D, p. 78.

Zittel, K. A. 1893 B, p. 589.

Microclenodon assurgens (Cope).

Cope, E. D. 1884 K, p. 311. (Trisodon.)

1884 S, p. 350. (Diadon.)

Cope, E. D. 1888 CC, pp. 304, 321. [Mioclenus (Goniacodon).]

Roger, O. 1896 A, p. 33.

Scott, W. B. 1892 B, p. 302.

Trouessart, E. L. 1896 A, p. 224.

Eocene (Puerco); New Mexico.

SARCOOTBRAUSTES Cope. Type *S. antiquus* Cope.

Cope, E. D. 1882 E, pp. 158, 193.

1884 O, pp. 260, 346.

1884 S, p. 267.

1888 D, p. 255.

Matthew, W. D. 1897 C, p. 282.

Osborn and Earle 1895 A, p. 28.

Schlosser, M. 1887 B, p. 207.

Scott, W. B. 1892 A, p. 421.

1892 B, p. 302.

1892 D, p. 78.

Winge, H. 1895 B, pp. 46, 51.

Zittel, K. A. 1893 B, p. 589.

Sarcotbraustes antiquus Cope.

Cope, E. D. 1882 E, p. 193.

1882 H, p. 297. (Trisodon confidens.)

1884 K, p. 311. (Trisodon confidens.)

1884 O, pp. 271, 274, pl. xxliid, figs. 9, 10 (Trisodon confidens); p. 347, pl. xxiv, figs. 19-22 (S. antiquus).

- Cope, E. D. 1884 S, p. 267 (S. antiquus); p. 350 (Diacodon condens).
1888 CC, pp. 303, 320. (Miocænus antiquus, M. condens.)
Matthew, W. D. 1897 C, pp. 263, 283.
1899 A, p. 29.

- Osborn and Earle 1896 A, p. 29.
Roger, O. 1896 A, p. 33.
Scott, W. B. 1893 B, p. 303.
Trouessart, E. L. 1898 A, p. 224.
Wortman, J. L. 1899 A, p. 146.
Eocene (Torrejon); New Mexico.

MESONYCHIDÆ.

- Cope, E. D. 1876 A, p. 3.
1880 C, pp. 78, 79.
1882 E, pp. 157, 158.
1884 O, pp. 259, 260, 255.
1884 S, pp. 260, 261.
1888 CC, p. 310.
Matthew, W. D. 1897 C, p. 284.
Nicholson and Lydekker 1889 A, p. 1458.
Osborn, H. F. 1893 D.
Osborn and Wortman 1892 A, p. 112.
Roger, O. 1896 A, p. 34.

- Schlosser, M. 1886 C.
Scott, W. B. 1888 B, p. 164.
1890 A, p. 472.
1892 A, p. 419.
1892 B, pp. 294, 303.
1892 D, pp. 77, 78.
Steinmann and Döderlein 1890 A, p. 712.
Winge, H. 1895 A, pp. 46, 49, 50. (Mesonychini.)
Wortman, J. L. 1899 A, p. 146. (With subfamilies Mesonychinae and Trisodontinae.)
Zittel, K. A. 1893 B, p. 589.

DISSACUS Cope. Type *D. navajovius* Cope.

- Cope, E. D. 1881 Z, p. 1019.
1882 E, p. 158.
1884 K, p. 324.
1884 O, pp. 260, 344, 741.
1884 S, p. 267.
1888 CC, p. 343.
Earle, C. 1896 A, p. 261.
Lemolne, V. 1891 A, p. 271.
Matthew, W. D. 1897 C, pp. 284, 306.
Nicholson and Lydekker 1889 A, p. 1458.
Osborn, H. F. 1893 B, p. 325.
Osborn and Earle 1896 A, p. 30.
Osborn and Wortman 1892 A, p. 112.
Schlosser, M. 1887 B, p. 209.
Scott, W. B. 1892 A, pp. 418, 420.
1892 B, p. 303.
1892 D, p. 78.
Winge, H. 1895 B, pp. 46, 49, 91, 100, 101.
Wortman, J. L. 1899 A, p. 147.
Zittel, K. A. 1893 B, p. 589.

Dissacus leptognathus Osb. and Wort.

- Osborn and Wortman 1892 A, p. 112 (D. leptognathus); fig. 10 [? Dissacus (Pachyæna) leptognathus].
Matthew, W. D. 1899 A, p. 31.
Roger, O. 1896 A, p. 34.
Scott, W. B. 1892 B, p. 304.
Trouessart, E. L. 1893 B, p. 225.
Eocene (Wasatch); Wyoming.

Dissacus navajovius Cope.

- Cope, E. D. 1881 H, p. 484. (Miocænus.)
1881 Z, p. 1019.
1882 E, p. 165.
1882 EE, p. 834. (D. carnifex.)
1884 O, p. 345. pl. xxvc, fig. 1 (D. navajovius); pp. 345, 741, pl. xxivg, figs. 3, 4 (D. carnifex).
1884 S, p. 267, fig. 11.
1888 CC, pp. 304, 344 (D. navajovius); p. 304 (D. carnifex).
Matthew, W. D. 1897 C, pp. 263, 284, 320.
1899 A, pp. 29, 31, footnote.
Osborn, H. F. 1896 H, p. 174, fig. 5. (D. carnifex.)
Roger, O. 1896 A, p. 34. (D. navajovius, D. carnifex.)
Trouessart, E. L. 1898 A, p. 225. (D. carnifex, D. navajovius.)
Wortman, J. L. 1896 A, p. 420, fig. 202.
Eocene (Torrejon); New Mexico.

Dissacus saurognathus Wort.

- Wortman, J. L. in Matthew, W. D. 1897 C, pp. 263, 285, 320, fig. 9.
Matthew, W. D. 1899 A, p. 29.
Osborn and Earle 1895 A, p. 30, figs. 8, 9. (D. carnifex, not of Cope.)
Eocene (Torrejon); New Mexico.

PACHYÆNA Cope. Type *P. ossifraga* Cope.

- Cope, E. D. 1874 O, p. 13.
1877 K, p. 94.
1881 Z, p. 1018.
1882 E, p. 165.
Earle, C. 1896 A, p. 261.
Matthew, W. D. 1897 C, p. 284.
1899 A, p. 31, footnote.
Osborn and Earle 1895 A, p. 38.
Scott, W. B. 1888 B, p. 165.
1892 A, p. 420.
1892 B, p. 304.

- Scott, W. B. 1892 D, p. 79.
Winge, H. 1895 B, pp. 46, 49, 91, 100, 101.
Zittel, K. A. 1893 B, p. 590.

Pachyæna gigantea Osb. and Wort.

- Osborn and Wortman 1892 A, p. 113, figs. 11, 12.
Matthew, W. D. 1899 A, p. 31.
Roger, O. 1896 A, p. 34.
Trouessart, E. L. 1898 A, p. 225.
Zittel, K. A. 1893 B, p. 590, fig. 495.
Eocene (Wasatch); Wyoming.

Pachyæna intermedia Wort.

Wortman, J. L. 1899 A, p. 147.

Matthew, W. D. 1899 A, p. 31. (No description.)

Eocene (Wasatch); Wyoming.

Pachyæna ossifraga Cope.

Cope, E. D. 1874 O, p. 13.

1875 C, p. 11.

1875 F, p. 94.

1877 K, p. 94, pl. xxxix, fig. 10.

1881 Z, p. 1018. (Mesonyx.)

1882 E, p. 165. (Mesonyx.)

1882 S, p. 334.

Cope, E. D. 1884 O, p. 362, pl. xxive, fig. 14-19; pl. xxviii, fig. 1; pl. xxviii; pl. xxviii; pl. xxviii. (Mesonyx.)

1884 S, p. 264, figs. 2, 6, 8, 10. (Mesonyx.)

King, C. 1878 A, p. 376.

Matthew, W. D. 1899 A, p. 31.

Osborn and Wortman 1892 A, p. 112.

Roger, O. 1896 A, p. 34.

Schlosser, M. 1887 B, p. 206.

Steinmann and Döderlein 1890 A, p. 714.

Trouessart, E. L. 1898 A, p. 225.

Wortman, J. L. 1886 A, p. 418, figs. 200, 201. (Mesonyx.)

1899 A, p. 147.

Eocene (Wasatch); New Mexico, Wyoming.

MESONYX Cope. Type *M. obtusidens* Cope.

Cope, E. D. 1872 M, p. 460.

Allen, H. 1886 B.

Cope, E. D. 1872 R, p. 483. (Synoplotherium, type *S. lanius*.)

1872 HH.

1873 E, p. 550 (Mesonyx); p. 554 (Synoplotherium).

1873 G, p. 198 (Mesonyx); p. 203 (Synoplotherium).

1875 C, p. 5 (Mesonyx); p. 9 (Synoplotherium).

1875 L, p. 21.

1876 A, p. 1 (Synoplotherium); p. 3 (Mesonyx).

1890 C, p. 79.

1881 Z.

1882 E, p. 158.

1882 S, p. 334.

1884 O, pp. 260, 348.

1884 S, p. 263.

1887 S, pp. 251, 278.

Earle, C. 1898 A, p. 261.

Flower, W. H. 1876 B, xiii, p. 514.

Flower and Lydekker 1891 A, p. 609.

Major, Fors. 1893 A, p. 200.

Marsh, O. C. 1876 H, p. 403. (Dromocyon, type *D. vorax*.)

1877 E. (Dromocyon, Mesonyx.)

Matthew, W. D. 1897 C, p. 284.

Nicholson and Lydekker 1889 A, p. 1453.

Osborn, H. F. 1893 D, p. 6.

Osborn and Earle 1895 A, p. 37.

Schlosser, M. 1887 B, p. 206 (Synoplotherium); p. 207 (Mesonyx).

1890 B, p. 64.

Scott, W. B. 1888 B, p. 164 (Mesonyx); p. 165 (Synoplotherium).

1890 A, p. 472.

1892 A, p. 420.

1892 B, p. 306.

1892 D, p. 79.

Steinmann and Döderlein 1890 A, p. 713.

Wilckens, M. 1885 D, p. 523. (Dromocyon.)

Winge, H. 1895 B, pp. 46, 49, 91.

Woodward, A. S. 1898 B, p. 382.

Wortman, J. L. 1886 A, p. 417.

Zittel, K. A. 1893 B, p. 590.

Mesonyx? dakotensis Scott.

Scott, W. B. 1892 B, p. 306.

Trouessart, E. L. 1898 A, p. 226.

Oligocene (White River); South Dakota.

Mesonyx lanius Cope.

Cope, E. D. 1872 R, p. 483. (Synoplotherium.)

1873 E, p. 557, pls. v, vi. (Synoplotherium.)

1873 G, p. 207. (Synoplotherium.)

1877 K, p. 94. (Synoplotherium.)

1884 O, pp. 264, 348, 358, pl. xxvii, figs. 25-28; pl. xxviii; pl. xxix, figs. 1-6; pl. xixa, fig. 1.

1884 S, p. 265, fig. 7.

Matthew, W. D. 1899 A, p. 41.

Osborn and Wortman 1892 A, p. 113.

Roger, O. 1896 A, p. 34.

Trouessart, E. L. 1898 A, p. 226.

Eocene (Bridger); Wyoming.

Mesonyx obtusidens Cope.

Cope, E. D. 1872 M, p. 460.

1873 E, p. 552.

1873 G, p. 201.

1884 O, pp. 348, 355, pl. xxvi, figs. 3-12; pl. xxvii, figs. 1-24.

1884 S, p. 264.

1887 M.

Matthew, W. D. 1899 A, pp. 41, 49.

Osborn, H. F. 1896 C, p. 107, illus. 3.

1896 Q, p. 18.

Roger, O. 1896 A, p. 34.

Scott, W. B. 1888 B, p. 155, pl. v; pl. vi, fig. 1; pl. vii, figs. 1-3.

1892 B, p. 307.

Trouessart, E. L. 1898 A, p. 226.

Eocene (Bridger); Wyoming; (Uinta); Utah.

Mesonyx uintensis Scott.

Scott, W. B. 1888 B (1887), p. 168. (M.? uintensis.)

Cope, E. D. 1887 M, p. 927. (M. uintensis.)

Matthew, W. D. 1899 A, p. 49.

Osborn, H. F. 1896 A, p. 79, fig. 4.

Roger, O. 1896 A, p. 34.

Scott, W. B. 1890 A, p. 471, pl. x, fig. 9.

Scott and Osborn 1887 A, p. 255. (Name only.)

Trouessart, E. L. 1896 A, p. 226.
Eocene (Uinta); Utah.

Mesonyx vorax (Marsh).

Marsh, O. C. 1876 H, p. 403. (Dromocyon.)

King, C. 1878 A, p. 403.

Matthew, W. D. 1899 A, p. 41.

Schlosser, M. 1890 B, p. 63. (Dromocyon.)

Scott, W. B. 1892 B, p. 306. (Syn. of *Mesonyx obtusidens*.)

Trouessart, E. L. 1896 A, p. 228. (Syn. of *M. obtusidens*.)

Eocene (Bridger); Wyoming.

PROVIVERRIDÆ.

Schlosser, M. 1896 C, p. 293.

Flower and Lydekker 1891 A, p. 608.

Lydekker, R. 1887 A, p. 307.

Matthew, W. D. 1899 A, pp. 31, 35, 40.

Nicholson and Lydekker 1889 A, p. 1452.

Roger, O. 1896 A, p. 34.

Scott, W. B. 1892 B, pp. 294, 307.

Scott, W. B. 1892 D, pp. 77, 79.

1894 F, p. 501.

Steinmann and Döderlein 1890 A, p. 712.

Trouessart, E. L. 1896 A, p. 226.

Winge, H. 1895 B, pp. 46, 48. (Proviverrini.)

Zittel, K. A. 1893 B, p. 592.

DELTATHERIUM Cope. Type *D. fundaminis* Cope.

Cope, E. D. 1881 N, p. 337.

1881 H, p. 486.

1881 Z, p. 1019. (*Lipodectes*, type *L. penetrans* Cope.)

1882 E, p. 157. (Deltatherium, *Lipodectes*.)

1884 O, pp. 260, 277.

1884 S, p. 352.

1888 D, p. 255.

Lydekker, R. 1887 A, p. 309.

Nicholson and Lydekker 1889 A, p. 1453.

Osborn and Earle 1895 A, p. 39.

Schlosser, M. 1887 A, p. 219.

1888 B, pp. 16, 23.

Scott, W. B. 1892 A, p. 418.

1892 B, p. 308.

1892 D, p. 79.

Trouessart, E. L. 1896 A, p. 227.

Winge, H. 1895 B, pp. 46, 49, 91, 101.

Zittel, K. A. 1893 B, p. 592.

Deltatherium fundaminis Cope.

Cope, E. D. 1881 N, p. 337.

1881 H, p. 486.

1881 Z, p. 1019. (*Lipodectes penetrans*.)

1882 C, p. 463.

Cope, E. D. 1882 X, p. 522.

1884 O, p. 278, pl. xxiii, figs. 8-11; pl. xxva, fig. 10; pl. xxvd, fig. 3.

1884 S, p. 352, fig. 20.

1888 D.

1888 CC, p. 304.

1889 C, p. 229, fig. 54.

Lydekker, R. 1887 A, p. 309.

Matthew, W. D. 1899 A, p. 29.

Osborn and Earle 1895 A, p. 40, figs. 10, 11.

Roger, O. 1896 A, p. 35.

Trouessart, E. L. 1896 A, p. 227.

Zittel, K. A. 1893 B, p. 593, fig. 497.

Eocene (Puerco); New Mexico.

Deltatherium? interruptum Cope.

Cope, E. D. 1882 C, p. 463.

1884 O, p. 282, pl. xxliid, fig. 13.

1888 CC, pp. 303, 323. (*Mioclenus*.)

Matthew, W. D. 1899 A, p. 28. (*Mioclenus*.)

Roger, O. 1896 A, p. 164.

Scott, W. B. 1892 B, p. 323. (Genus not determined.)

Trouessart, E. L. 1896 A, p. 720.

Eocene (Puerco); New Mexico.

STYLOPHUS Cope. Type *S. pungens* Cope.

Cope, E. D. 1872 N, p. 466.

1872 E, p. 469. (*Triacodon*, not of Marsh.)

1873 E, p. 559 (*Stylophus*); pp. 560, 611 (*Triacodon*).

1874 O, p. 13. (*Prototomus*, type *P. viverrinus*.)

1875 C, pp. 5, 9. (*Prototomus*.)

1875 L, p. 21. (*Stylophus*.)

1876 A. (*Stylophus*.)

1877 K, pp. 87, 109, 112. (*Stylophus*.)

1879 A, p. 43. (*Stylophus*.)

1880 C, p. 79. (*Stylophus*.)

1882 E, p. 158 (*Stylophus*); p. 164 (*Prototomus*).

1884 E. (*Stylophus*.)

1884 O, pp. 35, 260, 285 (*Stylophus*); p. 35 (*Prototomus*).

Cope, E. D. 1884 S, p. 350. (*Stylophus*.)

1887 S, p. 251. (*Stylophus*.)

1888 D. (*Stylophus*.)

1889 C, p. 232. (*Stylophus*.)

Leidy, J. 1871 F, p. 115. (*Sinopa*, type *S. rapax*; description insufficient.)

1872 B, p. 355.¹ (*Sinopa*.)

1873 B, p. 116. (*Sinopa*.)

Marsh, O. C. 1872 G, p. 126. (*Limnocyon*, type *L. verus*.)

1877 E.

Matthew, W. D. 1899 A, p. 31. (*Sinopa*.)

Nicholson and Lydekker, 1889 A, p. 1437. (*Stylophus*=*Proviverra*; *Limnocyon*.)

Osborn, Scott, and Fpelt 1878 A, p. 18. (*Sinopa*.)

Schlosser, M. 1887 B, p. 218. (*Stylophus*.)

1888 B, p. 16. (*Stylophus*.)

¹In case this paper was issued before Cope 1872 N ("Aug. 3, 1872") *Sinopa* will replace *Stylophus*.

- Schlosser, M. 1890 C, p. 244. (Stypolophus.)
 Scott, W. B. 1892 A, p. 419. (Sinopa.)
 1892 B, p. 308. (Sinopa.)
 1892 D, p. 79. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 227.
 Wilckens, M. 1885 D, p. 524. (Sinopa.)
 Winge, H. 1895 B, pp. 46, 47, 52, 91, 100, 101.
 Woodward, A. S. 1898 B, p. 383.
 Zittel, K. A. 1893 B, pp. 592. (Sinopa.)

Stypolophus aculeatus Cope.

- Cope, E. D. 1872 M, p. 460. (Triacodon.)
 1872 E, p. 469. (Triacodon.)
 1873 E, pp. 560, 611. (Triacodon.)
 1873 U, p. 3. (Triacodon.)
 1877 K, p. 112.
 1882 E, p. 161.
 1884 O, pp. 290, 299, pl. xxiv, figs. 6, 7; p. xxvii, figs. 1, 2.
 Matthew, W. D. 1899 A, p. 31. (Sinopa.)
 Roger, O. 1896 A, p. 35.
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 227. (Sinopa.)
 Eocene (Wasatch); New Mexico.

Stypolophus agilis (Marsh).

- Marsh, O. C. 1872 I, p. 204. (Limnocyon.)
 Matthew, W. D. 1899 A, p. 40. (Sinopa.)
 Roger, O. 1896 A, p. 35 (S. agilis); p. 41 (Miaclestis agilis).
 Schlosser, M. 1890 B, p. 63. (Limnocyon.)
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 227 (Sinopa); p. 236 (Miaclestis).
 Eocene (Bridger); Wyoming.

Stypolophus brevicaratus Cope.

- Cope, E. D. 1872 E, p. 469. (S. brevicaratus, error.)
 1873 E, p. 560.
 1884 O, pp. 290, 291, pl. xxiv, fig. 9.
 Matthew, W. D. 1899 A, p. 40. (Syn. of Sinopa agilis.)
 Roger, O. 1896 A, p. 35.
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 227. (Sinopa.)
 Eocene (Bridger), Wyoming.

Stypolophus hians Cope.

- Cope, E. D. 1877 K, pp. 72, 118, pl. xxxviii, figs. 12-20.
 1876 A, p. 1. (No description.)
 1884 O, p. 290. (Prototomus.)
 Matthew, W. D. 1899 A, p. 31. (Sinopa.)
 Roger, O. 1896 A, p. 36.
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 228. (Sinopa.)
 Eocene (Wasatch); New Mexico, Wyoming.

Stypolophus insectivorus Cope.

- Cope, E. D. 1872 E, p. 469.
 1873 E, p. 569.
 1884 O, p. 290, pl. xxiv, figs. 10, 11.
 Matthew, W. D. 1899 A, p. 40.
 Roger, O. 1896 A, p. 35.
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 227. (Sinopa.)
 Eocene (Bridger), Wyoming.

Stypolophus multicuspis Cope.

- Cope, E. D. 1875 C, p. 10. (Prototomus.)
 1877 K, pp. 112, 116, pl. xxxix, figs. 12-14.
 1884 O, p. 290.
 Matthew, W. D. 1899 A, p. 31. (Sinopa.)
 Roger, O. 1896 A, p. 36.
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 227. (Sinopa.)
 Eocene (Wasatch); New Mexico.

Stypolophus pungens Cope.

- Cope, E. D. 1872 N, p. 466.
 1873 E, p. 559.
 1884 O, pp. 290, 291, pl. xxiv, fig. 8.
 Matthew, W. D. 1899 A, p. 40. (Sinopa.)
 Roger, O. 1896 A, p. 35.
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 227. (Sinopa.)
 Eocene (Bridger); Wyoming.

Stypolophus rapax (Leidy).

- Leidy, J. 1872 B, p. 355. (Sinopa.)
 King, C. 1878 A, p. 403. (Sinopa.)
 Leidy, J. 1871 F, p. 115. (Sinopa; insufficient description.)
 1873 B, pp. 116, 118, 316, pl. vi, fig. 44. (Sinopa.)
 Matthew, W. D. 1899 A, p. 40. (Sinopa.)
 Roger, O. 1896 A, p. 35.
 Schlosser, M. 1887 B, p. 35. (Sinopa.)
 Scott, W. B. 1892 B, p. 311. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 227. (Sinopa.)
 Eocene (Bridger); Wyoming.

Stypolophus secundarius Cope.

- Cope, E. D. 1875 C, p. 9. (Prototomus.)
 1877 K, p. 115.
 1884 O, p. 290.
 Matthew, W. D. 1899 A, p. 31. (Sinopa.)
 Roger, O. 1896 A, p. 35.
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 227. (Sinopa.)
 Eocene (Wasatch); New Mexico.

Stypolophus strenuus Cope.

- Cope, E. D. 1875 C, p. 10. (Prototomus.)
 1877 K, p. 117, pl. xxxix, fig. 11.
 1880 N, p. 746.
 1882 E, p. 161. (Syn. of S. whitae.)
 1884 O, p. 290.
 Matthew, W. D. 1899 A, p. 31. (Sinopa.)
 Roger, O. 1896 A, p. 36.
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 228. (Sinopa.)
 Eocene (Wasatch); New Mexico, Wyoming.

Stypolophus verus (Marsh).

- Marsh, O. C. 1872 G, p. 126. (Limnocyon.)
 Matthew, W. D. 1899 A, p. 40. (Sinopa.)
 Roger, O. 1896 A, p. 35 (S. verus); p. 41 (Miaclestis vetus).
 Schlosser, M. 1890 B, pp. 62, 64. (Limnocyon vetus.)
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1898 A, p. 227 (Sinopa); p. 236 (Miaclestis vetus).
 Eocene (Bridger); Wyoming.

Stypolophus viverrinus Cope.

- Cope, E. D. 1874 O, p. 13. (Prototomus.)
 1875 C, p. 9. (Prototomus.)
 1877 K, p. 112, pl. xxxviii, figs. 1-11.
 1884 O, p. 290. (Prototomus.)
 Matthew, W. D. 1899 A, pp. 31, 35. (Sinopa.)
 Roger, O. 1896 A, p. 35.
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1897 A, p. 227. (Sinopa.)
 Eocene (Wasatch, Wind River); New Mexico, Wyoming.

Stypolophus whitesi Cope.

- Cope, E. D. 1882 E, p. 161.

- Cope, E. D. 1881 D, p. 192. (S. strenuus, not of Cope, 1875.)
 1884 O, pp. 290, 292, pl. xxv, figs. 8-14; pl. xxv, figs. 1, 2.
 1884 S, p. 347, fig. 13.
 1889 C, p. 282, fig. 58.
 Lydekker, R. 1887 A, p. 308, fig. 46. (Proviverra.)
 Matthew, W. D. 1899 A, pp. 31, 35. (Sinopa.)
 Roger, O. 1896 A, p. 36.
 Scott, W. B. 1892 B, p. 310. (Sinopa.)
 Trouessart, E. L. 1897 A, p. 228. (Sinopa.)
 Woodward, A. S. 1898 B, p. 383, fig. 214.
 Wortman, J. L. 1886 A, p. 422, fig. 204.
 Eocene (Wasatch and Wind River); Wyoming.

TRIACODON Marsh. Type *T. fallax* Marsh.

- Marsh, O. C. 1871 E, p. 123. (Not *Triacodon* of Cope.)
 Schlosser, M. 1887 B, p. 144.
 Zittel, K. A. 1893 B, p. 603.
 The systematic position of this genus is uncertain.

Triacodon fallax Marsh.

- Marsh, O. C. 1871 E, p. 123.
 Cope, E. D. 1873 E, p. 612.
 Leidy, J. 1872 B, p. 367.
 1873 B, p. 123.
 Matthew, W. D. 1899 A, p. 41.
 Schlosser, M. 1887 B, p. 144.
 Eocene (Bridger); Wyoming.

Triacodon grandis Marsh.

- Marsh, O. C. 1872 I, p. 222.
 Cope, E. D. 1873 U, p. 3.
 Matthew, W. D. 1899 A, p. 41.
 Schlosser, M. 1887 B, p. 144.
 Eocene (Bridger); Wyoming.

Triacodon nanus Marsh.

- Marsh, O. C. 1872 I, p. 223.
 Matthew, W. D. 1899 A, p. 41.
 Schlosser, M. 1887 B, p. 144.
 Eocene (Bridger); Wyoming.

PROVIVERRA Rüttimeyer. Type *P. typica* Rüttimeyer.

- Rüttimeyer, L., 1862, Schweiz. Gesell. Naturwiss., p. 80.
 Cope, E. D. 1880 C, p. 79.
 1882 E, p. 158.
 1884 O, p. 260.
 Flower and Lydekker 1891 A, p. 608.
 Gaudry, A. 1878 B, p. 20.
 Lydekker, R. 1887 A, p. 308.
 Nicholson and Lydekker 1889 A, p. 1452.
 Schlosser, M. 1887 B, p. 213.
 Scott, W. B. 1892 A, p. 419.
 1892 B, p. 311.

- Winge, H. 1895 B, p. 91.
 Zittel, K. A. 1893 B, p. 598.

Proviverra americana Scott.

- Scott, W. B. 1892 B, p. 311.
 Matthew, W. D. 1899 A, p. 40.
 Osborn, Scott, and Speir 1878 A, p. 18. (Sinopa rapax, not of Leidy.)
 Roger, O. 1896 A, p. 36.
 Trouessart, E. L. 1897 A, p. 228.
 Eocene (Bridger); Wyoming.

DIDELPHODUS Cope. Type *Deltatherium absarokæ* Cope.

- Cope, E. D. 1882 X, p. 522.
 1884 O, pp. 260, 283.
 1884 S, p. 351.
 1888 D, p. 255.
 Nicholson and Lydekker 1889 A, p. 1453.
 Schlosser, M. 1887 B, p. 214.
 1888 B, pp. 16, 23.
 1890 C, p. 244.
 Scott, W. B. 1892 B, p. 311.
 1892 D, p. 79.
 Winge, H. 1895 B, pp. 46, 49, 91, 101.
 Zittel, K. A. 1893 B, p. 596.

Didelphodus absarokæ Cope.

- Cope, E. D. 1881 S, p. 669. (Deltatherium.)
 1882 E, p. 161. (Deltatherium.)
 1882 X, p. 522.
 1884 O, p. 284, pl. xxiv, fig. 13.
 1884 S, p. 351, fig. 19.
 Matthew, W. D. 1899 A, p. 31.
 Roger, O. 1896 A, p. 36.
 Scott, W. B. 1892 B, p. 311.
 Trouessart, E. L. 1897 A, p. 229.
 Eocene (Wasatch); Wyoming.

PALÆOSINOPA Matth. Type *P. veterrima* Matth.

Matthew, W. D. 1899 A, p. 31. (Palæosinopa
"Wortman"; no description.)

For description of this genus and its type species
see Bull. Amer. Mus. Nat. Hist., xiv, 1901, p. 22.

Palæosinopa veterrima Matth.

Matthew, W. D. 1899 A, p. 31. (*P. veterrima*
"Wortman"; no description.)

Eocene (Wasatch); Wyoming.

VIVERRAVIDÆ.

Wortman and Matthew 1899 A, p. 136.

VIVERRAVUS Marsh. Type *V. gracilis* Marsh.

Marsh, O. C. 1872 G, p. 127.

Cope, E. D. 1873 E, p. 560.

1875 C, pp. 5, 11. (Didymictis, type *D. pro-*
tenus.)

1876 A. (Didymictis.)

1877 K, pp. 87, 123. (Didymictis.)

1880 C, p. 79. (Didymictis.)

1882 C, p. 470. (Didymictis.)

1882 E, pp. 157, 158. (Didymictis.)

1884 O, pp. 260, 304. (Didymictis.)

1884 S, p. 484. (Didymictis.)

1887 M, p. 927. (Didymictis.)

1888 K, p. 162. (Didymictis.)

Matthew, W. D. 1897 C, p. 236.

1899 A, pp. 30, 35.

Nicholson and Lydekker 1899 A, p. 1437. (Didy-
mictis, *Viverravus*.)

Osborn, H. F. 1888 F, p. 1076. (Didymictis.)

Osborn and Wortman 1892 A, p. 111. (Didymic-
tis.)

Schlösser, M. 1890 B, pp. 1, 61. (Didymictis.)

1899 A, p. 86. (Didymictis.)

Scott, W. B. 1890 A, p. 473. (Didymictis.)

1890 C, p. 265. (Didymictis.)

1892 A, p. 419. (Didymictis.)

1892 B, p. 318 (Didymictis); p. 321 (*Viverra-*
vus.)

1892 D, p. 80. (Didymictis.)

Steinmann and Döderlein 1890 A, p. 716. (Didy-
mictis.)

Trouessart, E. L. 1897 A, p. 235.

Winge, H. 1895 B, pp. 46, 52, 53, 91.

Wortman, J. L. 1886 A, p. 430.

Zittel, K. A. 1893 B, p. 602 (Didymictis); p. 603
(*Viverravus*).

Viverravus altidens (Cope).

Cope, E. D. 1880 N, p. 746. (Didymictis.)

1881 D, p. 190. (Didymictis.)

1882 E, p. 159. (Didymictis.)

1884 O, pp. 305, 307, pl. xxva, figs. 13, 14.
(Didymictis.)

Earle C. 1898 A, p. 261. (Didymictis.)

Matthew, W. D. 1897 C, p. 237. (Didymictis.)

1899 A, p. 35. (*Viverravus*.)

Osborn, H. F. 1897 G, p. 255. (Didymictis.)

Roger, O. 1896 A, p. 40. (Didymictis.)

Scott, W. B. 1888 B, p. 169. (Didymictis.)

1892 B, p. 320. (Didymictis.)

Trouessart, E. L. 1897 A, p. 235. (Didymictis.)

Eocene (Wasatch, Wind River, Bridger); Wy-
oming.

Viverravus curticens (Cope).

Cope, E. D. 1882 E, p. 160. (Didymictis.)

1884 O, pp. 306, 313, pl. xxivd, fig. 10. (Didy-
mictis.)

1884 S, p. 484. (Didymictis *curtus*, error? for
D. curticens.)

Matthew, W. D. 1897 C, p. 237. (Didymictis.)

1899 A, p. 30. (*Viverravus*.)

Osborn and Wortman 1892 A, pp. 83, 111. (Didy-
mictis.)

Roger, O. 1896 A, p. 40. (Didymictis.)

Scott, W. B. 1892 B, p. 320. (Didymictis.)

Trouessart, E. L. 1897 A, p. 235. (Didymictis.)

Eocene (Wasatch); Wyoming.

Viverravus gracilis Marsh.

Marsh, O. C. 1872 G, p. 127.

Cope, E. D. 1881 D, p. 191. (Didymictis *dawkins-*
ianus.)

1882 E, pp. 158, 159. (Didymictis *dawkins-*
ianus.)

1884 O, pp. 306, 310, pl. xxva, fig. 11. (Didy-
mictis *dawkinsianus*.)

1884 S, p. 485, fig. 30. (Didymictis *dawkins-*
ianus.)

Matthew, W. D. 1897 C, pp. 264, 296. (Didymictis
dawkinsianus.)

1899 A, pp. 35, 40.

Osborn, H. F. 1897 G, p. 255. (Didymictis *daw-*
kinsianus.)

Osborn and Wortman 1892 A, pp. 83, 111. (Didy-
mictis *dawkinsianus*.)

Roger, O. 1896 A, p. 40 (Didymictis *dawkinsianus*);
p. 41 (*V. gracilis*).

Schlösser, M. 1890 B, p. 63.

Scott, W. B. 1892 B, p. 320 (Didymictis *dawkins-*
ianus); p. 321 (*V. gracilis*).

Trouessart, E. L. 1897 A, p. 235 (Didymictis *daw-*
kinsianus); p. 236 (*V. gracilis*).

Wortman and Matthew 1899 A, p. 136.

Zittel, K. A. 1893 B, p. 603, fig. 506 B. (Didymictis
dawkinsianus.)

Eocene (Wasatch, Wind River, Bridger), Wy-
oming, Colorado.

Viverravus haydenianus (Cope).

Cope, E. D. 1882 C, p. 464. (Didymictis.)

1884 K, 309. (Didymictis *primus*.)

1884 O, pp. 305, 306, pl. xxvii, figs. 12, 13.
(Didymictis.)

1884 S, p. 484. (Didymictis.)

- Cope, E. D. 1888 CC, p. 304. (*D. haydenianus*, *D. primus*.)
 Matthew, W. D. 1897 C, pp. 286, 287. (*Didymictis*.)
 1899 A, p. 29. (*Viverravus*.)
 Roger, O. 1896 A, p. 40. (*Didymictis haydenianus*, *D. primus*.)
 Scott, W. B. 1892 B, p. 320. (*Didymictis*.)
 Trouessart, E. L. 1897 A, p. 234 (*D. haydenianus*); p. 235 (*D. primus*.)
 Zittel, K. A. 1893 B, p. 603, fig. 506 A. (*Didymictis*.)
 Eocene (Torrejon); New Mexico.

***Viverravus leptomylus* (Cope).**

- Cope, E. D. 1880 O, p. 908. (*Didymictis*.)
 1881 D, p. 191. (*Didymictis*.)
 1882 E, p. 159. (*Didymictis*.)
 1884 O, pp. 305, 309, pl. xxv, fig. 12. (*Didymictis*.)
 Matthew, W. D. 1897 C, p. 287. (*Didymictis*.)
 1899 A, p. 30, footnote; p. 35. (*Viverravus*.)
 Osborn and Wortman 1892 A, pp. 83, 111. (*Didymictis*.)
 Roger, O. 1896 A, p. 40. (*Didymictis*.)
 Scott, W. B. 1892 B, 320. (*Didymictis*.)
 Trouessart, E. L. 1897 A, p. 235. (*Didymictis*.)
 Eocene (Wind River); Wyoming.

***Viverravus massetericus* (Cope).**

- Cope, E. D. 1882 E, p. 159. (*Didymictis*.)
 1884 O, pp. 306, 312, pl. xxiv, fig. 11. (*Didymictis*.)
 1884 S, p. 484, fig. 29. (*Didymictis*.)
 Matthew, W. D. 1897 C, p. 287. (*Didymictis*.)

- Matthew, W. D. 1899 A, p. 30. (*Viverravus*.)
 Roger, O. 1896 A, p. 40.
 Scott, W. B. 1892 B, p. 320. (*Didymictis*.)
 Trouessart, E. L. 1897 A, p. 235. (*Didymictis*.)
 Eocene (Wasatch); Wyoming.

***Viverravus nitidus* Marsh.**

- Marsh, O. C. 1872 I, p. 205.
 Matthew, W. D. 1899 A, p. 40.
 Roger, O. 1896 A, p. 41.
 Schlosser, M. 1887 B, p. 143. (*Entomodon?*)
 1890 B, p. 63.
 Scott, W. B. 1892 B, p. 321.
 Trouessart, E. L. 1897 A, p. 236.
 Eocene (Bridger); Wyoming.

***Viverravus protenus* (Cope).**

- Cope, E. D. 1874 O, p. 15. (*Limnocyon*.)
 1875 C, p. 11. (*Didymictis*.)
 1875 L, p. 21. (*Didymictis*.)
 1877 K, p. 123, pl. xxxix, figs. 1-9. (*Didymictis*.)
 1882 E, p. 159. (*Didymictis*.)
 1884 O, pp. 305, 311, pl. xxv, figs. 4, 5. (*Didymictis*.)
 1887 S, p. 245. (*Didymictis*.)
 Matthew, W. D. 1897 C, p. 286. (*Didymictis*.)
 1899 A, pp. 30, 35. (*Viverravus*.)
 Osborn, H. F. 1897 G, p. 255. (*Didymictis*.)
 Roger, O. 1896 A, p. 40. (*Didymictis*.)
 Scott, W. B. 1892 B, p. 320. (*Didymictis*.)
 Trouessart, E. L. 1897 A, p. 235. (*Didymictis*.)
 Eocene (Wasatch); New Mexico, Wyoming, Colorado.

TELMATOCYON Marsh. Type *Limnocyon riparius* Marsh.

Marsh, O. C. 1899 B, p. 397.

***Telmatocyon riparius* Marsh.**

- Marsh, O. C. 1872 I, p. 203. (*Limnocyon*.)
 1899 B, p. 397.
 King, C. 1878 A, p. 403. (*Limnocyon*.)

- Matthew, W. D. 1899 A, pp. 35, 40. (*Viverravus*.)
 Roger, O. 1896 A, p. 41. (*Viverravus*.)
 Schlosser, M. 1890 B, pp. 63, 64. (*Limnocyon*.)
 Scott, W. B. 1891 B, pp. 310, 321. (*Viverravus*.)
 Trouessart, E. L. 1897 A, p. 236. (*Viverravus*.)
 Eocene (Wind River, Bridger); Wyoming.

AMBLOCTONIDÆ.

- Cope, E. D. 1877 K, p. 89.
 1890 C, pp. 78, 79. (*Amblyctonidæ*.)
 1882 E, pp. 157, 158. (*Amblyctonidæ*.)
 1884 O, pp. 259, 260, 739. (*Amblyctonidæ*.)
 Haeckel, E. 1896 A, pp. 578, 583. (*Palæonictidæ*.)
 Osborn, H. F. 1893 D, p. 33. (*Palæonictidæ*.)
 Osborn and Wortman 1892 A, p. 103. (*Palæonictidæ*.)

- Roger, O. 1896 A, p. 37. (*Palæonictidæ*.)
 Schlosser, M. 1896 C.
 Scott, W. B. 1892 B, pp. 294, 311. (*Palæonictidæ*.)
 1892 D, pp. 77, 79. (*Palæonictidæ*.)
 Trouessart, E. L. 1897 A, p. 229. (*Palæonictidæ*.)
 Winge, H. 1895 B, pp. 47, 52, 91. (*Palæonictidæ*.)
 Wortman, J. L. 1899 A, p. 140. (*Palæonictidæ*.)
 Zittel, K. A. 1893 B, p. 595. (*Palæonictidæ*.)

PALÆONICTIS Blainv. Type *P. gigantea* Blainv.

- Blainville, H. M. D. 1864 A (1841), II, N, p. 79.
 Cope, E. D. 1876 A, p. 3.
 1877 K, p. 88. (*Palæonictia*.)
 1884 O, p. 260. (*Palæonictia*.)
 Gervais, P. 1859 A, p. 225.
 Gaudry, A. 1878 B, p. 18.
 Osborn, H. F. 1892 A.
 1898 E.

- Osborn, H. F. 1893 H.
 1893 I, p. 321.
 Osborn and Wortman 1892 A, pp. 81, 96, 100, 104.
 Pictet, F. J. 1853 A, p. 212.
 Schlosser, M. 1887 B, p. 211.
 Scott, W. B. 1892 A, p. 413.
 1892 B, p. 311.
 1892 D, p. 79.

Winge, H. 1895 B, pp. 47, 52, 91, 93, 100, 101.
 Wortman, J. L. 1894 A, p. 156.
 Zittel, K. A. 1893 B, p. 595.

***Palæonictis occidentalis* Osb. and Wort.**

Osborn and Wortman 1892 A, p. 104, pl. iv.

Matthew, W. D. 1899 A, p. 31.
 Osborn, H. F. 1893 H, p. 435, fig. 1.
 Roger, O. 1896 A, p. 37.
 Trouessart, E. L. 1897 A, p. 230.
 Zittel, K. A. 1893 B, p. 595, fig. 499.
 Eocene (Wasatch); Wyoming.

AMBLOCTONUS Cope. Type *A. sinosus* Cope.

Cope, E. D. 1875 C, pp. 5, 7.

1876 A.

1877 K, pp. 87, 90.

1880 C, p. 79. (*Amblyctonus*.)

1882 E, p. 158. (*Amblyctonus*.)

1884 O, p. 260. (*Amblyctonus*.)

1887 S, p. 251. (*Amblyctonus*.)

1889 C, p. 190. (*Amblyctonus*.)

Flower and Lydekker 1891 A, p. 609. (*Amblyctonus*.)

Nicholson and Lydekker 1889 A, p. 1453. (*Amblyctonus*.)

Osborn, H. F. 1898 H, p. 436.

Osborn and Wortman 1892 A, pp. 81, 99, 104.

Schlösser, M. 1887 B, p. 206.

Scott, W. B. 1892 B, p. 312.

1892 D, p. 80.

Zittel, K. A. 1893 B, p. 596. (*Amblyctonus*.)

***Ambloctonus sinosus* Cope.**

Cope, E. D. 1875 C, p. 8.

1877 K, p. 91, pl. xxxiii.

1881 J, p. 546, fig. 5. (*Amblyctonus*.)

1884 O, p. 361. (*Amblyctonus*.)

1884 S, p. 265, fig. 4. (*Amblyctonus*.)

Matthew, W. D. 1899 A, p. 31. (*Amblyctonus*.)

Osborn and Wortman 1892 A, p. 106, fig. 8.

Roger, O. 1896 A, p. 37.

Trouessart, E. L. 1897 A, p. 230.

Eocene (Wasatch); New Mexico.

HYÆNODONTIDÆ.

Cope, E. D. 1875 L, p. 22.

1877 K, p. 89. (*Oxyænidæ*.)

1880 C, pp. 78, 79. (*Oxyænidæ*.)

1882 E, pp. 156, 158. (*Oxyænidæ*.)

1884 O, pp. 259, 260. (*Oxyænidæ*.)

1884 S, pp. 261, 480. (*Oxyænidæ*.)

1886 L, p. 965.

Flower and Lydekker 1891 A, p. 608.

Gill, T. 1872 B, pp. 59, 68.

Haeckel, E. 1895 A, pp. 578, 583. (*Hyænodontida*.)

Leidy, J. 1871 C, p. 342.

Lydekker, R. 1884 A, p. 348.

1885 B, p. 20.

1885 E.

Nicholson and Lydekker 1889 A, p. 1450.

Osborn, H. F. 1893 D.

1900 I, p. 276. (*Oxyænidæ*.)

Osborn and Wortman 1892 A, p. 104.

Roger, O. 1896 A, p. 37.

Schlösser, M. 1886 C. (*Oxyænidæ, Hyænodontidæ*.)

Scott, W. B. 1888 B, p. 184.

1892 A, p. 419.

1892 B, pp. 294, 313.

1892 D, pp. 77, 79.

1894 F.

1895 F, p. 720.

Steinmann and Döderlein 1890 A, p. 714.

Trouessart, E. L. 1897 A, p. 230.

Winge, H. 1896 B, pp. 46, 48, 50, 91. (*Hyænodontidæ*.)

Wortman, J. L. 1899 A, p. 139. (*Oxyænidæ, Hyænodontidæ*.)

Zittel, K. A. 1893 B, p. 596.

OXYÆNINÆ.

Osborn, H. F. 1900 I, p. 276. (*Oxyænidæ*.)

Schlösser, M. 1886 C. (*Oxyænidæ*.)

Wortman, J. L. 1899 A, p. 139. (*Oxyænidæ*.)

OXYÆNA Cope. Type *O. lupina* Cope.

Cope, E. D. 1874 O, p. 11.

1875 C, p. 9.

1875 L.

1876 A.

1877 K, pp. 87, 95.

1880 C, p. 79.

1882 E, p. 158.

1882 S, p. 480.

1884 E.

1884 O, pp. 260, 313.

1887 S, p. 251.

Flower and Lydekker 1891 A, p. 608.

Lydekker, R. 1885 B, p. 35.

Matthew, W. D. 1898 A, p. 880.

Nicholson and Lydekker 1889 A, p. 1451. (*Oxyæna*.)

Osborn, H. F. 1900 I, p. 269.

Osborn and Wortman 1892 A, p. 108.

Schlösser, M. 1887 B, p. 204.

1890 B, pp. 36, 71.

Scott, W. B. 1888 B, p. 184.

1892 A, p. 418.

1892 B, p. 314.

1892 D, p. 79.

Winge, H. 1896 B, pp. 47, 53, 91, 93, 101.

Wortman, J. L. 1894 A, p. 152.

Zittel, K. A. 1893 B, p. 597.

Oxyæna forcipata Cope.*Cope, E. D.* 1874 O, p. 12.

1875 C, p. 9.

1876 A.

1877 K, pp. 72, 106, pls. xxxv, figs. 7-12; pl. xxxvi; pl. xxxvii, figs. 1-5.

1882 E, p. 164.

1884 O, p. 318, pl. xxivb, figs. 11-15; pl. xxivc, figs. 1-18.

1884 S, pp. 260, 482, figs. 3, 25.

King, C. 1878 A, p. 376.*Matthew, W. D.* 1899 A, p. 31.*Osborn, H. F.* 1897 G, p. 256.*Osborn and Wortman* 1892 A, p. 109.*Roger, O.* 1896 A, p. 37.*Trouessart, E. L.* 1897 A, p. 230.

Eocene (Wasatch); New Mexico, Wyoming.

From a remark by Dr. Wortman (1899 A, p. 140) we may infer that a part, or most probably all, of the remains described by Cope in 1884 O, p. 318, as *O. forcipata* belong to *O. lupina*.

Oxyæna huerfanensis Osb.*Osborn, H. F.* 1897 G, p. 256.*Matthew, W. D.* 1899 A, p. 35.*Trouessart, E. L.* 1899 A, p. 1290.

Eocene (Wind River); Colorado.

PATRIOFELIS Leidy.*Leidy, J.* 1870 G, p. 11.*Cope, E. D.* 1880 C, p. 79.1880 N, p. 745. (Protopealis, type *P. tigrinus* Cope.)

1881 D, p. 193. (Protopealis.)

1882 E, p. 158. (Patriofelis, Protopealis.)

1884 O, p. 260 (Patriofelis); pp. 260, 321 (Protopealis.)

1884 S, p. 480 (Protopealis); p. 483 (Patriofelis).

Leidy, J. 1871 C, p. 344.

1873 B, p. 114.

Marsh, O. C. 1872 I, p. 202. (Limnofelis, type *L. ferox*.)1872 O, p. 406. (Oreocyon, type *O. latidens*.)

1877 E. (Oreocyon, Limnofelis.)

Nicholson and Lydekker 1889 A, p. 1452. (Protopealis.)*Osborn, H. F.* 1893 H, p. 436.

1896 C, pp. 705, 710, illus. 1.

1898 Q, p. 15.

1900 I, p. 269.

Schlosser, M. 1887 B, p. 210. (Patriofelis, Protopealis.)

1890 B, p. 36. (Protopealis.)

Scott, W. B. 1892 B, p. 313 (Patriofelis); p. 316 (Protopealis.)

1892 D, p. 79 (Protopealis); p. 80 (Patriofelis).

1894 F, p. 533.

Winge, H. 1895 B, p. 97.*Woodward, A. S.* 1898 B, p. 384.*Wortman, J. L.* 1894 A.*Zittel, K. A.* 1898 B, p. 566 (Patriofelis); p. 597 (Protopealis).**Patriofelis ferox (Marsh).***Marsh, O. C.* 1872 I, p. 202. (Limnofelis.)**Oxyæna lupina Cope.***Cope, E. D.* 1874 O, p. 11.

1875 C.

1877 K, p. 101, pl. xxxiv, figs. 14-17; pl. xxxv, figs. 1-4.

King, C. 1878 A, p. 376.*Matthew, W. D.* 1899 A, p. 31.*Osborn, H. F.* 1900 I, p. 276.*Osborn and Wortman* 1892 A, p. 108, fig. 9.*Roger, O.* 1896 A, p. 37.*Trouessart, E. L.* 1897 A, p. 597, fig. 501.*Wortman, J. L.* 1899 A, p. 140, pl. vii; text figs. 1, 2. Eocene (Wasatch); New Mexico, Wyoming.**Oxyæna morsitans Cope.***Cope, E. D.* 1874 O, p. 12.

1875 C, p. 9.

1877 K, p. 98, pl. xxxiv, figs. 1-13.

1881 J, p. 546, fig. 6.

1884 S, p. 263, fig. 6.

1889 C, p. 190.

Matthew, W. D. 1899 A, p. 31.*Roger, O.* 1896 A, p. 37.*Trouessart, E. L.* 1897 A, p. 230.

Eocene (Wasatch); New Mexico.

Type *P. ulia* Leidy.*King, C.* 1878 A, p. 403.*Lydekker, R.* 1896 B, p. 372, fig. 77.*Matthew, W. D.* 1899 A, p. 41.*Osborn, H. F.* 1898 Q, p. 10.

1900 I, p. 276, figs. 2, 4-8.

Roger, O. 1896 A, p. 37.*Schlosser, M.* 1890 B, p. 63. (Limnofelis.)*Scott, W. B.* 1892 B, p. 316. (Syn.? of Protopealis tigrinus.)*Trouessart, E. L.* 1897 A, p. 230.*Woodward, A. S.* 1898 B, p. 384, fig. 215.*Wortman, J. L.* 1894 A, pl. i, text figs. 1-5.

Eocene (Bridger); Wyoming.

Patriofelis latidens (Marsh).*Marsh, O. C.* 1872 I, p. 203. (Limnofelis.)

1872 O, p. 406. (Oreocyon.)

Matthew, W. D. 1899 A, p. 41.*Schlosser, M.* 1890 B, p. 63. (Limnofelis.)*Scott, W. B.* 1892 B, p. 313. (Syn. of *P. ulia*.)*Trouessart, E. L.* 1897 A, p. 230. (Syn. of *P. ulia*.)*Wortman, J. L.* 1894 A, p. 129.

Eocene (Bridger); Wyoming.

A doubtful species.

Patriofelis tigrina (Cope).*Cope, E. D.* 1880 N, p. 745. (Protopealis.)

1881 D, p. 193. (Protopealis.)

1884 O, pp. 260, 322, pl. xxv, figs. 1-7. (Protopealis.)

1884 S, p. 483, fig. 27. (Protopealis.)

Matthew, W. D. 1899 A, p. 35.*Osborn, H. F.* 1900 I, p. 277, fig. 7B. (Protopealis.)*Roger, O.* 1896 A, p. 38. (Protopealis.)*Schlosser, M.* 1887 B, p. 210. (Protopealis.)*Scott, W. B.* 1888 B, p. 174. (Protopealis.)

1892 B, 316. (Protopealis.)

Trouessart, E. L. 1897 A, p. 231. (Protopealis.)

Wortman, J. L. 1894 A, p. 130.
Eocene (Wind River); Wyoming.

***Patriofelis ulta* Leidy.**

Leidy, J. 1870 G, p. 11.
1871 C, p. 344.
1872 B, p. 365.
1873 B, pp. 114, 316, pl. ii, fig. 10.
Matthew, W. D. 1899 A, p. 41.

Osborn, H. F. 1897 G, p. 25.
1900 I, p. 279.
Osborn and Wortman 1892 A, p. 97.
Roger, O. 1896 A, p. 37.
Scott, W. B. 1892 B, p. 313.
Trouessart, E. L. 1897 A, p. 230.
Wortman, J. L. 1894 A, pp. 129, 130, 164.
Eocene (Bridger); Wyoming.

HYÆNODONTINÆ.

Schlosser, M. 1886 C. (Hyænodontidæ.)
Winge, H. 1895 B, p. 46. (Hyænodontini.)

Wortman, J. L. 1899 A, p. 139. (Hyænodontidæ.)

HYÆNODON Laizer and Parieu. Type *H. leptorhynchus* Laizer and Parieu.

Laizer and Parieu 1839 A.
Blainville, H. M. D. 1864 A, ii, L, p. 55, pl. xii, figs. 1-5. (Taxotherium.)
Cope, E. D. 1875 C, p. 5.
1883 I, p. 79.
1884 O, p. 739.
1884 S, p. 344.
1886 L, p. 966.
1888 D.
Farr, M. S. 1896 A, p. 163.
Filhol, H. 1876 A, p. 169.
Flower, W. H. 1876 B, xlii, p. 514.
Flower and Lydekker 1891 A, p. 608.
Gaudry, A. 1878 B, p. 13.
Gervais, P. 1859 A, p. 232.
Glebel, C. G. 1847 A, p. 43.
Leidy, J. 1869 A, p. 38.
1871 C, p. 342.
Lydekker, R. 1884 A, p. 343.
1885 B, p. 21.
1900 A, p. 927.
Marsh, O. C. 1877 E.
Nicholson and Lydekker 1889 A, p. 1450.
Osborn and Wortman 1894 A, p. 224.
Owen, R. 1852 B.
1868 A, p. 340.
Pictet, F. J. 1853 A, p. 196.
Pomel, A. 1853 A, p. 115.
Schlosser, M. 1887 B, p. 173.
Scott, W. B. 1888 B, pp. 164, 175.
1892 A, p. 419.
1892 B, p. 317.
1892 D, p. 79.
1894 F.
1895 B.
Trouessart, E. L. 1897 A, p. 232.
Vasseur, G. 1874 A.
Wilckens, M. 1885 D, p. 490.
Winge, H. 1895 B, pp. 46, 50, 91, 100, 101.
Woodward, A. S. 1898 B, p. 385.
Wortman, J. L. 1894 A, p. 156.
Zittel, K. A. 1893 B, p. 599.

***Hyænodon crucians* Leidy.**
Leidy, J. 1853 D, p. 393.
Cope, E. D. 1874 B, p. 505.
Hayden, F. V. 1858 B, p. 158.
King, C. 1878 A, p. 411.

Leidy, J. 1869 A, pp. 43, 369, pl. ii.
1871 C, p. 342.
Matthew, W. D. 1899 A, p. 53.
Osborn and Wortman 1894 A, p. 224.
Roger, O. 1896 A, p. 40.
Scott, W. B. 1888 B, p. 175.
1892 B, p. 318.
1894 F.
Trouessart, E. L. 1897 A, p. 234.
Oligocene (White River); South Dakota.

***Hyænodon cruentus* Leidy.**
Leidy, J. 1853 D, p. 393.
Hayden, F. V. 1858 B, p. 158.
King, C. 1878 A, p. 411.
Leidy, J. 1869 A, pp. 47, 369, pl. v, figs. 10, 11.
1871 C, p. 342.
Matthew, W. D. 1899 A, p. 53.
Osborn and Wortman 1894 A, p. 224.
Roger, O. 1896 A, p. 40.
Scott, W. B. 1888 B, p. 175, pl. vi, fig. 2.
1894 F, figs. 1-4, 6, 7, 10.
1895 B, pl. xii A.
Trouessart, E. L. 1897 A, p. 234.
Woodward, A. S. 1898 B, p. 387, fig. 217.
Oligocene (White River); South Dakota, Colorado.

***Hyænodon horridus* Leidy.**
Leidy, J. 1853 D, p. 392.
Cope, E. D. 1874 B, p. 505.
1884 S, p. 346, fig. 12.
Flower, W. H. 1876 C, p. 120.
Hayden, F. V. 1858 B, p. 158.
King, C. 1878 A, p. 411.
Leidy, J. 1869 A, pp. 39, 369, pl. iii.
1871 C, p. 342.
Matthew, W. D. 1899 A, p. 53.
Osborn and Wortman 1894 A, p. 224.
Roger, O. 1896 A, p. 40.
Scott, W. B. 1888 B, p. 175, pl. vii, figs. 4-6.
1894 F, fig. 5.
1895 B, p. 442.
Scott and Osborn 1887 B, p. 151.
Trouessart, E. L. 1897 A, p. 234.
Wortman, J. L. 1896 A, p. 421, fig. 203.
Zittel, K. A. 1893 B, p. 601, fig. 506.
Oligocene (White River); South Dakota.

Hyænodon leptcephalus Scott.

Scott, W. B. in Scott and Osborn 1887 B, p. 152, text fig. 1.

Matthew, W. D. 1899 A, p. 53.

Osborn and Wortman 1894 A, p. 224.

Roger, O. 1896 A, p. 40.

Scott, W. B. 1888 B, p. 175.

1894 F.

Trouessart, E. L. 1897 A, p. 234.

Oligocene (White River); South Dakota.

Hyænodon mustelinus Scott.

Scott, W. B. 1894 F, p. 499.

Oligocene (White River); South Dakota.

Hyænodon paucidens Osb. and Wort.

Osborn and Wortman 1894 A, p. 223.

Matthew, W. D. 1899 A, p. 53.

Roger, O. 1896 A, p. 40.

Scott, W. B. 1894 F.

Trouessart, E. L. 1897 A, p. 234.

Oligocene (White River); South Dakota.

HEMIPSALODON Cope. Type *H. grandis* Cope.

Cope, E. D. 1885 H, p. 163.

1891 A, p. 6.

Nicholson and Lydekker 1889 A, p. 1452.

Scott, W. B. 1892 B, p. 316.

1892 D, p. 79.

1894 F, p. 535.

Zittel, K. A. 1893 B, p. 598.

Hemipsalodon grandis Cope.

Cope, E. D. 1885 H, p. 163.

Aml, H. M. 1891 A.

Cope, E. D. 1886 U, p. 80.

1899 I, p. 151.

1891 A, p. 6, pls. II, III.

Matthew, W. D. 1899 A, p. 53.

Roger, O. 1896 A, p. 38.

Scott, W. B. 1892 B, p. 317.

Trouessart, E. L. 1897 A, p. 231.

Oligocene (White River); Northwest Territory, Canada.

OXYÆNODON Matth. Type *O. dysodus* Matth.

Matthew, W. D. 1899 A, p. 49. (Reference to figured specimen.)

Osborn, H. F. 1900 I, p. 278.

Wortman, J. L. 1899 A, p. 145.

Oxyænodon dysodus Matth.

Matthew, W. D. 1899 A, p. 49. (Reference to figured specimen.)

Osborn, H. F. 1896 A, p. 78, fig. 3. ("? Hyænodon.")

Eocene (Uinta); Utah.

Oxyænodon dysclerus nom. nov.

Wortman, J. L. 1899 A, p. 145, fig. 8. (*O. dysodus*, not of Matthew.)

Eocene (Uinta); Utah.

It is by no means certain that this species belongs to the genus *Oxyænodon*, as represented by the type jaw.

UINTACYONIDÆ.

The following authors call this family *Miacidæ*.

Cope, E. D. 1880 C, pp. 78, 79.

1882 E, pp. 156, 157.

1884 O, pp. 259, 260.

1884 S, p. 483.

1886 L, p. 966.

1888 K, p. 163.

1888 EE, p. 163.

Matthew, W. D. 1897 C, p. 286.

1899 A, p. 49. (Miacidæ, in part.)

Nicholson and Lydekker 1889 A, p. 1437.

Roger, O. 1896 A, p. 40.

Schlosser, M. 1886 C.

Scott, W. B. 1888 A.

1888 B, p. 173.

1892 A, p. 419.

1892 B, pp. 294, 318.

1892 D, pp. 77, 80.

1895 F, p. 720.

Steinmann and Döderlein 1890 A, p. 716.

Trouessart, E. L. 1897 A, p. 234.

Zittel, K. A. 1893 B, p. 602.

UINTACYON Leidy. Type *U. edax* Leidy.

Leidy, J. 1872 J, p. 277.

Ameghino, F. 1896 A, p. 454. (Miacidæ, in part.)

Cope, E. D. 1880 C, p. 79.

1882 E, p. 157.

1884 O, pp. 260, 301. (Miacidæ, in part.)

1884 S, p. 483. (Miacidæ, in part.)

Leidy, J. 1873 B, p. 118. (Uintacyon.)

Matthew, W. D. 1897 C, p. 286. (Miacidæ, in part.)

Nicholson and Lydekker 1889 A, p. 1437. (Miacidæ, in part.)

Osborn, H. F. 1892 I. (Miacidæ, in part.)

Osborn and Wortman 1892 A, pp. 95, 110. (Miacidæ, in part.)

Schlosser, M. 1888 B, p. 58 (Miacidæ); p. 61 (Uintacyon).

1890 B, p. 60. (Miacidæ, in part.)

1899 B, p. 146.

Scott, W. B. 1888 B, p. 173. (Miacidæ, in part.)

1890 A, p. 473. (Miacidæ, in part.)

1892 B, p. 320. (Miacidæ, in part.)

- Scott, W. B. 1892 D, p. 80. (Miacle, in part.)
1896 B, p. 363. (Miacle, in part.)
Trouessart, E. L. 1897 A, p. 235. (Miacle, in part.)
Winge, H. 1896 B, pp. 46, 52, 91, 92. (Miacle, in part.)
Wortman and Matthew 1899 A, p. 110.
Zittel, K. A. 1898 B, p. 602. (Miacle, in part.)

Uintacyon bathygnathus (Scott).

- Scott, W. B. 1888 B, p. 172. (Miacle.)
Matthew, W. D. 1899 A, p. 40.
Roger, O. 1896 A, p. 41. (Miacle.)
Schlosser, M. 1887 B, p. 59. (Miacle.)
Scott, W. B. 1889 B, p. 220. (Miacle.)
1892 B, p. 320. (Miacle.)
Trouessart, E. L. 1897 A, p. 235. (Miacle.)
Eocene (Bridger); Wyoming.

Uintacyon brevirostris (Cope.)

- Cope, E. D. 1881 D, p. 190. (Miacle.)
1882 E, p. 158. (Miacle.)
1884 O, pp. 302, 303. (Miacle.)
1884 S, p. 484, fig. 28. (Miacle.)
Matthew, W. D. 1899 A, pp. 30, 35.
Osborn and Wortman 1892 A, pp. 83, 111. (Miacle.)
Roger, O. 1896 A, p. 41. (Miacle.)
Scott, W. B. 1892 B, p. 320. (Miacle.)
Trouessart, E. L. 1897 A, p. 236. (Miacle.)
Wortman and Matthew 1899 A, p. 112.
Eocene (Wind River, Wasatch); Wyoming.

Uintacyon canavus (Cope).

- Cope, E. D. 1881 D, p. 189. (Miacle.)
1882 E, p. 158. (Miacle.)
1884 O, p. 302. (Miacle.)
Matthew, W. D. 1899 A, pp. 30, 35. (Uintacyon.)
Osborn and Wortman 1892 A, p. 110. (Miacle.)
Roger, O. 1896 A, p. 41. (Miacle.)
Scott, W. B. 1892 B, p. 320. (Miacle.)
Trouessart, E. L. 1897 A, p. 236. (Miacle.)
Wortman and Matthew 1899 A, p. 112.
Eocene (Wasatch and Wind River); Wyoming.

PRODAPHÆNUS Matth.

- Matthew, W. D. 1899 A, p. 49. (April 8.)
Wortman and Matthew 1899 A, p. 114. (June 21.)

Prodaphænus scotti Wort. and Matth.

- Wortman and Matthew 1899 A, p. 115.
Matthew, W. D. 1899 A, p. 49. (Name only.)
Eocene (Uinta); Wyoming.

PROCYNODICTIS Wort. and Matth.

- Wortman and Matthew 1899 A, p. 121.
Put in this family provisionally.

Uintacyon edax Leidy.

- Leidy, J. 1872 J, p. 277.
Cope, E. D. 1884 O, p. 303. (Miacle.)
1887 Q. (Miacle.)
King, C. 1878 A, p. 408. (Uintacyon.)
Leidy, J. 1873 B, pp. 118, 316, pl. xxvii, figs. 6-10. (Uintacyon.)
Matthew, W. D. 1899 A, p. 40. (Uintacyon.)
Osborn and Wortman 1892 A, pp. 83, 110. (Miacle.)
Roger, O. 1896 A, p. 40. (Miacle.)
Schlosser, M. 1888 B, p. 61.
Scott, W. B. 1892 B, p. 320. (Miacle.)
Trouessart, E. L. 1897 A, p. 235. (Miacle.)
Wortman and Matthew 1899 A, p. 114.
Eocene (Bridger); Wyoming.

Uintacyon promicrodon Wort. and Matth.

- Wortman and Matthew 1899 A, p. 111.
Eocene (Wasatch); Wyoming.

Uintacyon pugnax Wort. and Matth.

- Wortman and Matthew 1899 A, p. 114.
Eocene; Wyoming.

Uintacyon vorax Leidy.

- Leidy, J. 1872 J, p. 277.
Cope, E. D. 1884 O, p. 302. (Miacle.)
Leidy, J. 1873 B, pp. 120, 316, pl. xxvii, figs. 11-13. (Uintacyon.)
Matthew, W. D. 1899 A, pp. 35, 40. (Uintacyon.)
Roger, O. 1896 A, p. 40. (Miacle.)
Schlosser, M. 1888 B, p. 61.
Trouessart, E. L. 1897 A, p. 235. (Miacle.)
Wortman and Matthew 1899 A, p. 113.
Eocene (Wind River, Bridger); Wyoming.

Uintacyon vulpinus Scott and Osb.

- Scott and Osborn 1887 A, p. 255. (Amphicyon.)
Matthew, W. D. 1899 A, p. 49. (Miacle.)
Roger, O. 1896 A, p. 41. (Miacle.)
Scott, W. B. 1890 A, p. 474. (Miacle.)
1892 B, p. 321. (Miacle.)
Trouessart, E. L. 1897 A, p. 236. (Miacle.)
Eocene (Uinta); Utah.

Type *P. uintensis* (Osb.).

Prodaphænus uintensis (Osb.).

- Osborn, H. F. 1895 A, p. 77, fig. 2. (Miacle.)
Matthew, W. D. 1899 A, p. 49.
Roger, O. 1896 A, p. 41. (Miacle.)
Scott, W. B. 1898 B, p. 363, fig. 17. (Miacle.)
Trouessart, E. L. 1897 A, p. 236. (Miacle.)
Eocene (Uinta); Utah.

Type *P. vulpiceps* Wort. and Matth.

Procynodictis vulpiceps Wort. and Matth.

- Wortman and Matthew 1899 A, p. 121, figs. 7, 8.
Matthew, W. D. 1899 A, p. 49. (No description.)
Eocene (Uinta); Utah.

THINOCYON Marsh. Type *T. velox* Marsh.

Marsh, O. C. 1872 I, p. 204.
 Schlosser, M. 1890 B, p. 64.
 Scott, W. B. 1892 B, p. 321.
 Zittel, K. A. 1893 B, p. 602. (Syn.? of *Miacia*.)

Thinocyon velox Marsh.

Marsh, O. C. 1872 I, p. 204.

Matthew, W. D. 1899 A, p. 40.
 Roger, O. 1896 A, p. 41.
 Schlosser, M. 1890 B, p. 63.
 Scott, W. B. 1892 B, p. 321.
 Trouessart, E. L. 1897 A, p. 237.
 Eocene (Bridger); Wyoming.

VULPAVUS Marsh. Type *V. palustris* Marsh.

Marsh, O. C. 1871 E, p. 124.
 Cope, E. D. 1872 E, p. 470. (*Miacis*, type *M. parvivorus*.)

1873 E, p. 561. (*Miacis*, *Viverravus*.)
 1890 C, p. 79. (*Miacia*.)
 1882 E, p. 157. (*Miacis*.)
 1884 O, pp. 260, 301. (*Miacis*, in part.)

Matthew, W. D. 1899 A, p. 39.
 Nicholson and Lydekker 1889 A, p. 1437. (*Miacis*, in part.)

Osborn and Wortman 1892 A, pp. 95, 110. (*Miacis*, in part.)

Schlosser, M. 1899 B, p. 60 (*Miacis*); p. 64. (*Vulpavus*.)

Scott, W. B. 1888 B, p. 173. (*Miacis*, in part.)
 1890 A, p. 473. (*Miacis*, in part.)
 1892 B, p. 320. (*Miacis*, in part.)
 1892 D, p. 80. (*Miacis* in part.)
 1898 B, p. 363. (*Miacis*, in part.)

Trouessart, E. L. 1897 A, p. 236. (Syn.? of *Miacis*.)

Winge, H. 1895 B, pp. 46, 52, 91, 92. (*Miacis*, in part.)

Wortman and Matthew 1899 A, p. 110.

Zittel, K. A. 1893 B, p. 602. (= ? *Miacis*.)

Vulpavus palustris Marsh.

Marsh, O. C. 1871 E, p. 124.

King, C. 1878 A, p. 403.

Ledy, J. 1872 B, p. 356.

1873 B, p. 118.

Matthew, W. D. 1899 A, p. 39.

Roger, O. 1896 A, p. 41. (*Miacis*?)

Schlosser, M. 1890 B, p. 62.

Trouessart, E. L. 1897 A, p. 236. (*Miacis*?)

Wortman and Matthew 1899 A, p. 118, figs. 4-6.

Eocene (Bridger); Wyoming.

Vulpavus parvivorus (Cope).

Cope, E. D. 1872 E, p. 470. (*Miacia*.)

1873 E, p. 560. (*Viverravus*.)

1873 U, p. 3. (*Viverravus*.)

1884 O, pp. 302, 304, pl. xxiv, fig. 12. (*Miacia*.)

Matthew, W. D. 1899 A, p. 39. (Syn. of *Vulpavus palustris*.)

Roger, O. 1896 A, p. 40. (*Miacis*.)

Scott, W. D. 1892 B, p. 320. (*Miacis*.)

Trouessart, E. L. 1897 A, p. 235. (*Miacia*.)

Wortman and Matthew 1899 A, pp. 119, 120.

Eocene (Bridger); Wyoming.

ZIPHACODON Marsh. Type *Z. rugatus* Marsh.

Marsh, O. C. 1872 I, p. 216.

1877 E. (Name only.)

Matthew, W. D. 1899 A, p. 40.

Schlosser, M. 1890 B, p. 64.

Zittel, K. A. 1893 B, p. 603.

Zipbacodon rugatus Marsh.

Marsh, O. C. 1872 I, p. 216.

Roger, O. 1896 A, p. 42.

Schlosser, M. 1890 B, p. 64.

Trouessart, E. L. 1897 A, p. 237.

Eocene (Bridger); Wyoming.

HARPALODON Marsh. Type *H. sylvestris* Marsh.

Marsh, O. C. 1872 I, p. 216.

Schlosser, M. 1890 B, p. 64.

Zittel, K. A. 1893 B, p. 603.

Harpalodon sylvestris Marsh.

Marsh, O. C. 1872 I, p. 216.

Matthew, W. D. 1899 A, p. 40.

Roger, O. 1896 A, p. 42.

Schlosser, M. 1890 B, p. 64.

Trouessart, E. L. 1897 A, p. 231.

Eocene (Bridger); Wyoming.

Harpalodon vulpinus Marsh.

Marsh, O. C. 1872 I, p. 217.

Matthew, W. D. 1899 A, p. 40.

Roger, O. 1896 A, p. 42.

Schlosser, M. 1890 B, p. 64.

Trouessart, E. L. 1897 A, p. 237.

Eocene (Bridger); Wyoming.

CARCINODON Scott. Type *Miocænus filholianus* Cope.

Scott, W. B. 1892 B, p. 323.

Matthew, W. D. 1897 C, p. 293.

1899 A, p. 28.

Zittel, K. A. 1893 B, p. 586.

A genus of uncertain position placed by Matthew in Creodonta, "Incertæ sedis."

Carcinodon filholianus (Cope).Cope, E. D. 1888 CC, pp. 303, 329. (*Miocænus*.)

Matthew, W. D. 1897 C, pp. 264, 293.

1899 A, p. 28.

Roger, O. 1896 A, p. 41.

Scott, W. B. 1892 B, p. 323.

Trouessart, E. L. 1897 A, p. 237.

Eocene (Puerco); New Mexico.

PARADOXODON Scott. Type *Chriacus rütimeyeranus* Cope.

Scott, W. B. 1892 B, p. 322.

1892 D, p. 80.

Zittel, K. A. 1893 B, p. 586.

A genus of uncertain position.

Paradoxodon rütimeyeranus (Cope).Cope, E. D. 1888 CC, pp. 304, 323. (*Chriacus*.)Matthew, W. D. 1899 A, p. 28. (*Miocænus*.)

Roger, O. 1896 A, p. 41.

Scott, W. B. 1892 B, p. 323.

Trouessart, E. L. 1897 A, p. 237.

Eocene (Puerco); New Mexico.

Suborder FISSIPEDIA.

Cope, E. D. 1882 D, pp. 471, 473.

1888 W, p. 1019. (*Carnivora vera*.)

1889 B, p. 876.

1898 B, p. 118.

Flower, W. H. 1876 B, xiii, p. 487. (*Carnivora vera*.)

1883 D, p. 433.

Gill, T. 1872 A, p. 297.

1872 B, p. 56.

Gill and Coues 1877 A, p. 1005. [*Fera* (*Fissipedia*).]

Huxley, T. H. 1872 A, p. 351.

Lydekker, R. 1896 B.

Nicholson and Lydekker 1889 A, p. 1424. (*Carnivora vera*.)

Weber, M. 1896 A, p. 227.

Woodward, A. S. 1898 B, p. 339. (*Carnivora vera*.)

Zittel, K. A. 1893 B, pp. 606, 678.

Superfamily ARCTOIDEA.

Flower, W. H. 1869 B, p. 15.

Cope, E. D. 1882 D, p. 473. (*Hypomycteri*, in part.)1884 O, pp. 890, 892. (*Hypomycteri*, in part.)

Flower, W. H. 1883 D, p. 439.

Flower and Lydekker 1891 A, p. 556.

Huxley, T. H. 1872 A, p. 358.

Mivart, St. G. 1881 A, p. 474.

1885 B, p. 340.

Schlosser, M. 1888 B, p. 6.

Toma, H. W. M. 1896 B, p. 462.

Tomes, C. S. 1898 A, p. 472.

URSIDÆ.

Albrecht, P. 1879 A.

Baird, S. F. 1857 A, p. 206.

Blainville, H. M. D. 1864 A, ii, K, pla. i-xviii.

Cope, E. D. 1882 D, p. 473.

1884 O, p. 892.

Cuvier, G. 1834 A, ii, p. 171.

Delbos, J. 1858 A.

1860 A.

1860 B.

Flower, W. H. 1869 A, p. 277.

1876 B, xiii, p. 488.

1883 D, p. 441.

1885 A.

Flower and Lydekker 1891 A, p. 557.

Gadow, H. 1898 A, p. 50.

Gill, T. 1872 B, pp. 58, 66.

Gray, J. E. 1869 A, p. 215.

Haeckel, E. 1895 A, p. 585. (*Ursida*.)

Lydekker, R. 1884 A, p. 202.

1885 B, p. 106, in part.

Mivart, St. G. 1885 B, p. 394.

Nicholson and Lydekker 1889 A, p. 1430.

Owen, R. 1843 A, p. 62.

Owen, R. 1845 B, p. 501.

1866 B, p. 490.

1868 A, p. 335.

Pictet, F. J. 1858 A, p. 183.

Roger, O. 1896 A, p. 52.

Schlosser, M. 1888 A.

1888 B, pp. 3, 14, 15.

1899 B, p. 96.

Scott, W. B. 1888 A.

1892 A.

Steinmann and Döderlein 1890 A, p. 721.

Tornier, G. 1888 A.

1890 A.

Trouessart, E. L. 1897 A, p. 238.

Turner, H. N. 1848 A.

Waterhouse, G. R. 1839 A.

Weyhe, — 1875 A, p. 117.

Winge, H. 1895 B, pp. 47, 63, 91. (*Ursidæ*, *Ursini*.)

Woodward, A. S. 1898 B, p. 394.

Zittel, K. A. 1893 B, p. 639.

URSUS Linn. Type *U. arctos* Linn.

- Linnaeus*, C. 1758, Syst. Nat., ed. 10, i, p. 47.
 Allen, H. 1888 A.
 Baird, S. F. 1857 A, p. 216.
 Blainville, H. M. D. 1864 A, II, K, pls. i-xviii.
 Burmeister, H. 1879 B, p. 169.
 Delbos, J. 1856 A.
 1860 A.
 1860 B.
 Flower, W. H. 1869 B, p. 6.
 1883 D, p. 441.
 1885 A.
 Flower and Lydekker 1891 A, p. 557.
 Gray, J. E. 1869 A, p. 218.
 Lydekker, R. 1884 A, p. 206.
 1885 B, p. 159.
 Merriam, C. H. 1896 A.
 Middendorff, A. T. 1850 A.
 Milvart, St. G. 1885 B, p. 389.
 Nicholson and Lydekker 1889 A, p. 1431.
 Owen, R. 1843 A, p. 62.
 1846 B, p. 77.
 1866 B, p. 490.
 1868 A, p. 335.
 Pictet, F. J. 1853 A, p. 185.
 Schlosser, M. 1888 B, p. 88.
 1899 B, p. 95.
 1900 A, p. 261.
 Scott, W. B. 1892 A, p. 425.
 Steinmann and Döderlein 1890 A, p. 722.
 Trouessart, E. L. 1897 A, p. 238.
 Turner, H. N. 1848 A, p. 75.
 Zittel, K. A. 1893 B, p. 641.

Ursus americanus Pallas.

- Allen, J. A. 1876 C, p. 333.
 Baird, S. F. 1857 A, p. 225, pl. xliii, figs. 10, 13.

- Cope, E. D. 1869 E, p. 176.
 1896 F, p. 447.
 Harlan, R. 1835 C, p. 329.
 Leidy, J. 1853 B, p. 303. ("Ursus.")
 1856 T, p. 169.
 1859 F, p. 111.
 1869 A, p. 369.
 Merriam, C. H. 1896 A.
 Miller, G. S. 1899 A, p. 54. (*U. americanus fossilis*.)
 Pictet, F. J. 1853 A, p. 189.
 Trouessart, E. L. 1897 A, p. 243.
 Wallis, B. L. C. 1854 A, p. 286. (*U. americanus fossilis*.)
 Recent; North America. Pleistocene; Kentucky, Mississippi, Pennsylvania.

Ursus amplidens Leidy.

- Leidy*, J. 1853 B, p. 303.
 Cope, E. D. 1869 E, p. 176.
 Forshey, C. G. 1846 A, p. 163. ("Polar bear;" species problematical.)
 Leidy, J. 1856 T, p. 168, pl. xvii, figs. 13-16.
 1869 A, p. 370.
 Merriam, C. H. 1896 A.
 Miller, G. S. 1899 A, p. 54.
 Roger, O. 1896 A, p. 55. (*Arctotherium*.)
 Trouessart, E. L. 1897 A, p. 243.
 Wallis, B. L. C. 1854 A, p. 286.
 Wortman, J. L. 1882 A. (*U. amplidens*=*U. ferrox*.)
 Zittel, K. A. 1893 B, p. 643.
 Pleistocene; Mississippi, Virginia.

Ursus procerus Miller.

- Miller*, G. S. 1899 A, p. 55.
 Pleistocene; Ohio.

ARCTODUS Leidy. Type *A. pristinus* Leidy.

- Leidy*, J. 1854 C, p. 90.
 Ameghino, F. 1889 A, p. 315. (*Arctotherium*.)
 Bravard, 1860, Cat. Foss. Amer. Merid., p. 8. (*Arctotherium*.)
 Cope, E. D. 1871 I, p. 96. (*Ursus*.)
 1899 A, p. 221. (*Tremarctos*.)
 Flower and Lydekker 1891 A, p. 561. (*Arctotherium*.)
 Gervais, P., 1855, Hist. Nat. Mamm., II, p. 20. (*Tremarctos*, type *T. ornatus*.)
 Gervais and Ameghino 1880 A, p. 23. (*Arctotherium*.)
 Lydekker, R. 1884 A, p. 236. (*Arctotherium*.)
 1885 B, p. 157. (*Arctotherium*.)
 Nicholson and Lydekker 1889 A, p. 1429 (*Arctodus*); p. 1432 (*Arctotherium*.)
 Steinmann and Döderlein 1890 A, p. 722. (*Arctotherium*.)
 Zittel, K. A. 1893 B, p. 641. (*Arctotherium*.)

Arctodus haplodon (Cope).

- Cope*, E. D. 1896 F, p. 383. [*Ursus* (*Tremarctus*).]
 1871 F, p. 15. (*Ursus pristinus*, not of Leidy.)
 1871 I, p. 96. (*Ursus pristinus*.)
 1871 P, p. 58. (*Ursus pristinus*.)
 1896 F, p. 447. (*Arctotherium pristinum*.)

- Cope, E. D. 1899 A, p. 220, pl. xix, figs. 2, 2a. (*Ursus*.)
 Miller, G. S. 1899 A, p. 54. (*Ursus*.)
 Trouessart, E. L. 1897 A, p. 245. (*Tremarctos*.)
 Wheatley, C. M. 1871 A. (*Ursus pristinus*.)
 Pleistocene (Port Kennedy Cave); Pennsylvania.

Arctodus pristinus Leidy.

- Leidy*, J. 1854 C, p. 90. (*Arctodus*.)
 Cope, E. D. 1896 F, p. 383. (*Ursus*.)
 1899 A, p. 221. (*Ursus*.)
 Leidy, J. 1860 B, p. 115, pl. xxiii, figs. 3, 4. (*Arctodus*.)
 1869 A, p. 370. (*Arctodus*.)
 Miller, G. S. 1899 A, p. 54. (*Arctodus*.)
 Roger, O. 1896 A, p. 55. (*Arctodus*.)
 Trouessart, E. L. 1897 A, p. 246. (*Tremarctos*.)
 Pleistocene; South Carolina.

Arctodus simus (Cope).

- Cope*, E. D. 1879 U, p. 791. (*Arctotherium*.)
 1891 K, p. 997, pl. xxi. (*Arctotherium*.)
 1899 A, p. 221. (*Ursus*.)
 Miller, G. S. 1899 A, p. 54. (*Arctotherium*.)
 Roger, O. 1896 A, p. 54. (*Arctotherium*.)
 Trouessart, E. L. 1897 A, p. 245. (*Tremarctos*.)
 Pleistocene; California.

PROCYONIDÆ.

- Albrecht, P. 1879 A.
 Allen, H. 1880 A.
 Cope, E. D. 1880 D, p. 838.
 1881 C, p. 165.
 1882 D, p. 473.
 1884 E.
 1884 O, p. 892.
 Flower, W. H. 1869 B, p. 5.
 1883 D, p. 440.
 Flower and Lydekker 1891 A, p. 562.
 Gill, T. 1872 B, pp. 58, 67.
 Gray, J. E. 1869 A, p. 242.
 Hæckel, E. 1895 A, p. 585. (Procyonida.)
- Huxley, T. H. 1880 A.
 Mivart, St. G. 1885 B, p. 393.
 Nicholson and Lydekker 1889 A, 1429.
 Roger, O. 1896 A, p. 55.
 Schlosser, M. 1888 B, p. 3 (Subursal); p. 12 (Procyonidæ).
 1890 B, p. 23. (Subursal.)
 1899 A, p. 94. ("Subursen.")
 Scott, W. B. 1892 A, p. 426.
 Trouessart, E. L. 1897 A, p. 248.
 Winge, H. 1895 B, pp. 47, 63, 91.
 Wortman and Matthew 1899 A, p. 129.
 Zittel, K. A. 1893 B, p. 644.

CERCOLEPTINÆ.

- Blainville, H. M. D. 1864 A, li, L, p. 20, pls. v, vii-x.
 Cope, E. D. 1882 D, p. 473. (Cercleptidæ.)
 1884 O, p. 892. (Cercleptidæ.)
- Gill, T. 1872 B, pp. 58, 67 (Cercleptidæ); pp. 59, 67 (Bassarididæ).
 Trouessart, E. L. 1897 A, p. 245.

LEPTARCTUS Leidy. Type *L. primus* Leidy.

- Leidy, J. 1856 Q, p. 311.
 1871 C, p. 344.
 Lydekker, R. 1884 A, p. 204.
 Nicholson and Lydekker 1889 A, p. 1429.
 Schlosser, M. 1899 A, p. 84.
 Wortman, J. L. 1895 B, p. 229.
 Zittel, K. A. 1893 B, p. 645.
- Leptarctus primus** Leidy.
Leidy, J. 1856 Q, p. 311.
Hayden, F. V. 1858 B, p. 158.
- King, C. 1878 A, p. 430.
 Leidy, J. 1869 A, pp. 70, 370, pl. 1, figs. 15, 16.
 1871 C, p. 344.
 Matthew, W. D. 1899 A, p. 67.
 Roger, O. 1896 A, p. 55.
 Schlosser, M. 1899 A, p. 84.
 Trouessart, E. L. 1897 A, p. 248.
 Wortman, J. L. 1894 B, p. 229.
 Zittel, K. A. 1893 B, p. 645.
 Miocene (Loup Fork); South Dakota.

BASSARISCUS Coues. Type *Bassariscus astuta* Licht.

- Coues, E., 1887, Science (2), ix, p. 516.
 Allen, J. A. 1879 A, p. 331. (Bassarisc.)
 Baird, S. F. 1857 A, p. 147. (Bassarisc.)
 Flower, W. H. 1869 B, p. 31. (Bassarisc.)
 Mivart, St. G. 1885 B, p. 361. (Bassarisc.)
 Schlosser, M. 1890 B, p. 4. (Bassarisc.)
 1890 C, p. 267. (Bassarisc.)
 1899 A, p. 86. (Bassarisc.)
 Winge, H. 1895 B, pp. 47, 64, 102, 103. (Bassarisc.)
 Wortman and Matthew 1899 A, p. 134.
- Bassariscus astutus** (Licht.).
 Allen, J. A. 1879 A, p. 325. (Bassarisc.)
 Baird, S. F. 1857 A, p. 147, pl. lxxiv, fig. 2. (Bassarisc.)
 Cope, E. D. 1895 F, p. 447.
 Flower, W. H. 1869 B, p. 10, fig. 3a. (Bassarisc.)
 Trouessart, E. L. 1897 A, p. 249.
 Recent; Mexico to Oregon. Pleistocene (Port Kennedy); Pennsylvania, *vide* Cope.

PROCYONINÆ.

PROCYON Storr. Type *Ursus lotor* Linn.

- Storr, G. C. 1780, Prod. Meth. Mamm., p. 35.
 Baird, S. F. 1857 A, p. 207.
 Blainville, H. M. D. 1864 A, li, L, p. 13, pls. iii, vi.
 Flower, W. H. 1869 B, p. 9.
 1883 D, p. 440.
 Flower and Lydekker 1891 A, p. 564.
 Giebel, C. G. 1857 A, p. 349.
 Gray, J. E. 1869 A, p. 242.
 Huxley, T. H. 1880 A.
 Mivart, St. G. 1885 B, p. 346.
 Nicholson and Lydekker 1889 A, p. 1429.
 Owen, R. 1868 A, p. 334.
 Schlosser, M. 1890 B, p. 23.
 Scott, W. B. 1892 A, p. 426.
- Winge, H. 1895 B, pp. 47, 65, 91.
 Wortman and Matthew 1899 A, p. 133.
 Zittel, K. A. 1893 B, p. 644.
- Procyon lotor** (Linn.).
Linnaeus, C. 1758, Syst. Nat., ed. 10, i, p. 48. (Ursus.)
 Allen, J. A. 1876 C, p. 833.
 Baird, S. F. 1857 A, p. 209.
 Cope, E. D. 1869 E, p. 176.
 Flower, W. H. 1869 B, p. 10, fig. 3.
 Giebel, C. G. 1857 A, p. 349.
 Leidy, J. 1860 B, p. 116, pl. xxiii, fig. 1.
 1869 A, p. 370.
 1889 H, p. 5.

Trouessart, E. L. 1897 A, p. 251.

Recent; Central and North America. Pleistocene; South Carolina, Virginia, Pennsylvania, New Jersey.

***Procyon priscus* Le Conte.**

Le Conte, J. L. 1848 A, p. 106.

Cope, E. D. 1869 E, p. 176.

Leidy, J. 1856 T, p. 169, pl. xvii, figs. 17-24.

1862 A.

1869 A, p. 370.

1870 H, p. 13.

Pictet, F. J. 1853 A, p. 191.

Roger, O. 1896 A, p. 55.

Trouessart, E. L. 1897 A, p. 251.

Pleistocene; Galena, Illinois.

PHLAOCYON Matth. Type *P. leucosteus* Matth.

Matthew, W. D. 1899 A, p. 54.

Wortman and Matthew 1899 A, p. 129.

***Phlaocyon leucosteus* Matth.**

Matthew, W. D. 1899 A, p. 54.

Wortman and Matthew 1899 A, pp. 129, 131, pl. vi.

Oligocene (White River); Colorado.

MYXOPHAGUS Cope. Type *M. spelæus* Cope.

Cope, E. D. 1869 E, p. 176.

***Myxophagus spelæus* Cope.**

Cope, E. D. 1869 E, p. 176, pl. iii, figs. 2, 2a.

1869 J, p. 3. (No description.)

Leidy, J. 1869 A, p. 445.

Roger, O. 1896 A, p. 55.

Trouessart, E. L. 1897 A, p. 252.

Pleistocene; Virginia.

MUSTELIDÆ.

Albrecht, P. 1879 A.

Baird, S. F. 1857 A, p. 148.

Blainville, H. M. D. 1864 A, ii M, pla. i-xiv.

Cope, E. D. 1875 L, p. 21.

1882 D, p. 473.

1884 O, p. 892.

Coues, E. 1877 A, pp. 1, i.

Flower, W. H. 1869 B.

1883 D, p. 439.

Flower and Lydekker 1891 A, p. 567.

Gill, T. 1872 B, pp. 58, 64.

Gray, J. E. 1865 A, p. 100.

1869 A, p. 79.

Haeckel, E. 1896 A, p. 587. (Mustelida.)

Humphreys, J. 1889 A, p. 158.

Lydekker, R. 1884 A, p. 178.

Mayer, P. 1886 A, p. 276.

Mivart, St. G. 1885 B, p. 393.

Nicholson and Lydekker 1889 A, p. 1426.

Owen, R. 1845 B, p. 494.

1868 A, p. 333.

Roger, O. 1896 A, p. 56.

Schlosser, M. 1883 B, pp. 3, 14, 107.

1890 C, p. 265.

Scott, W. B. 1892 A, p. 426.

Steinmann and Döderlein 1890 A, p. 723.

Tomes, C. S. 1898 A, p. 472.

Trouessart, E. L. 1897 A, p. 252.

Turner, H. N. 1848 A.

Waterhouse, G. R. 1839 A.

Winge, H. 1895 B, pp. 47, 65, 69, 91.

Woodward, A. S. 1896 B, p. 396.

Zittel, K. A. 1893 B, pp. 645, 654.

MELINÆ.

Blainville, H. M. D. 1864 A, ii, L, p. 2, pls. ii, vi, xii. (Genus Meles.)

Baird, S. F. 1857 A, p. 190.

Coues, E. 1877 A, pp. 5, 9, 10. (Melinæ, Mephitis.)

Flower, W. H. 1883 D, p. 439.

Flower and Lydekker 1891 A, p. 572.

Gill, T. 1872 B, p. 64 (Melinæ); p. 65 (Mephitis).

Mivart, St. G. 1885 B, p. 394.

Moseley and Lankester 1868 A. (Genus Meles.)

Owen, R. 1868 A, p. 333. (Melidæ.)

Roger, O. 1896 A, p. 60.

Trouessart, E. L. 1897 A, p. 252.

Winge, H. 1895 B, p. 47. (Melinæ.)

Zittel, K. A. 1893 B, p. 650.

TAXIDEA Storr. Type *Ursus taxus* Schreber.

Storr, G. C. 1780, Prod. Meth. Mamm., p. 34.

Baird, S. F. 1857 A, p. 201.

Flower, W. H. 1869 B, p. 11.

1883 D, p. 440.

Flower and Lydekker 1891 A, p. 576.

Gray, J. E. 1865 A, p. 140.

1869 A, p. 129.

Mivart, St. G. 1885 B, p. 367.

Owen, R. 1868 A, p. 333.

Waterhouse, G. R. 1838, Trans. Zool. Soc. Lond., ii, pp. 343.

Winge, H. 1895 B, p. 68.

***Taxidea taxus* (Schreber).**

Baird, S. F. 1857 A, p. 202. (T. americana.)

Cope, E. D. 1899 A, p. 239. (T. americana.)

Gray, J. E. 1865 A, p. 141. (T. americana.)

Mivart, St. G. 1885 B, p. 367. (T. americana.)

Recent. Ohio to Oklahoma, north to Hudson Bay. Pleistocene; Pennsylvania.

***Taxidea sulcata* Cope.**

Cope, E. D. 1873 C, p. 227.

1889 F, p. 162. (Syn. of T. americana.)

Roger, O. 1896 A, p. 61.

Trouessart, E. L. 1897 A, p. 252.

Pleistocene (Equus beds); State of Washington.

MEPHITIS Cuvier. Type "*Les Moutettes*."

- Cuvier, G. 1800, *Leçons d'Anat. Comp.*, i, tabl. i.
 Ameghino, F. 1889 F, p. 322.
 Baird, S. F. 1857 A, p. 191.
 Blainville, H. M. D. 1864 A, II, M, p. 19, pls. i, ix-xiv.
 Burmeister, H. 1879 B, p. 162.
 Cope, E. D. 1899 A, p. 232.
 Coues, E. 1875 A.
 Filhol, H. 1891 A, p. 109.
 Flower, W. H. 1869 B, p. 11.
 1883 D, p. 439.
 Flower and Lydekker 1891 A, p. 572.
 Gray, J. E. 1865 A, p. 147.
 1869 A, p. 136.
 Mivart, St. G. 1885 B, p. 370.
 Schlosser, M. 1888 B, pp. 113, 114, 140.
 Trouessart, E. L. 1897 A, p. 259.
 Winge, H. 1895 B, pp. 68, 79.
 Zittel, K. A. 1893 B, p. 652.
- Mephitis fossidens** Cope.
 Cope, E. D. 1896 F, p. 386.
 1899 A, pp. 231, 232, 233, pl. xviii, fig. 7.
 Trouessart, E. L. 1897 A, p. 259.
 Pleistocene; Pennsylvania.
- Mephitis frontata** Coues.
 Coues, E. 1875 A, p. 7, fig. 1.
 Allen, J. A. 1876 C, p. 333. (Syn. of *M. mephitis*.)
 Coues, E. 1877 A, p. 193.

- Trouessart, E. L. 1897 A, p. 260. (*M. mephitis frontata*.)
 Pleistocene; Pennsylvania.
- Mephitis leptops** Cope.
 Cope, E. D. 1899 A, pp. 232, 235, pl. xviii, figs. 9, 9a.
 Pleistocene; Pennsylvania.
- Mephitis mephitis** (Shaw).
 Allen, J. A. 1876 C, p. 333.
 Baird, S. F. 1857 A, p. 195, pl. ix, fig. 1.
 Cope, E. D. 1895 F, p. 447.
 1899 A, p. 232.
 Coues, E. 1875 A, p. 8.
 1877 A, p. 195. (Synonymy and literature.)
 Ledy, J. 1869 H, p. 5.
 Trouessart, E. L. 1897 A, p. 259.
 Recent; Louisiana northward to Nova Scotia and Saskatchewan. Pleistocene; Pennsylvania, *vide* Allen.
- Mephitis obtusata** Cope.
 Cope, E. D. 1899 A, p. 236.
 Pleistocene; Pennsylvania.
- Mephitis orthrostica** Cope.
 Cope, E. D. 1896 F, p. 389.
 1899 A, p. 234, pl. xviii, figs. 8, 8a.
 Trouessart, E. L. 1897 A, p. 259.
 Pleistocene; Pennsylvania.

SPILOGALE Gray. Type *Mephitis interrupta* Raf.

- Gray, J. E. 1865 A, p. 150.
 Coues, E. 1877 A, p. 192. (Subgenus.)
 Flower and Lydekker 1891 A, p. 574.
 Merriam, C. H., 1890, N. A. Fauna, no. 4, p. 7.
 Trouessart, E. L. 1897 A, p. 262.
- Spilogale perdicida** Cope.
 Cope, E. D. 1869 E, p. 177, pl. iii, fig. 1. (Galera.)
 1869 J, p. 3. (Hemiacis.)

- Cope, E. D. 1896 F, p. 386. (Galera.)
 Coues, E. 1875 A, p. 8. (Mephitis.)
 1877 A, p. 18. (Spilogale putorius?)
 Ledy, J. 1869 A, p. 445. (Galera.)
 Roger, O. 1896 A, p. 60. (Galictis.)
 Trouessart, E. L. 1897 A, p. 262. (Syn. of *S. putorius*.)
 Pleistocene; Virginia.

OSMOTHERIUM Cope. Type *O. spelæum* Cope.

- Cope, E. D. 1896 F, p. 385.
 1899 A, p. 230.
- Osmotherium spelæum** Cope.
 Cope, E. D. 1896 F, p. 385.

- Cope, E. D. 1899 A, p. 231, pl. xviii, fig. 6.
 Trouessart, E. L. 1897 A, p. 260.
 Pleistocene; Pennsylvania.

PELYCICTIS Cope. Type *P. lobulatus* Cope.

- Cope, E. D. 1896 F, p. 390.
 1899 A, p. 237.
- Pelycictis lobulatus** Cope.
 Cope, E. D. 1896 F, p. 390.

- Cope, E. D. 1899 A, p. 237, pl. xviii, fig. 10; text figure.
 Trouessart, E. L. 1897 A, p. 260.
 Pleistocene; Pennsylvania.

MUSTELINÆ.

- Baird, S. F. 1857 A, p. 148. (Martinae.)
 Flower, W. H. 1883 D, p. 440.
 Flower and Lydekker 1891 A, p. 579.
 Gill, T. 1872 B, p. 64.
 Lydekker, R. 1884 A, p. 178.
 Mivart, St. G. 1885 B, p. 394.

- Roger, O. 1896 A, p. 66.
 Trouessart, E. L. 1897 A, p. 263.
 Turner, H. N. 1848 A.
 Winge, H. 1895 B, pp. 47, 66, 69.
 Zittel, K. A. 1893 B, p. 646.

BUNÆLURUS Cope. Type *B. lagophagus* Cope.

Cope, E. D. 1873 CC, p. 8.

1874 B, p. 507.

1884 O, p. 946.

Trouessart, E. L. 1897 A, p. 264 (Bunælurus); p. 268 (Syn. of Palæogale).

Bunælurus lagophagus Cope.

Cope, E. D. 1873 CC, p. 8.

1873 CC, p. 10. (Canis osorum.)

1874 B, p. 507 (Canis osorum); p. 508 (B. lagophagus).

Cope, E. D. 1884 O, p. 946, pl. lxviii, figs. 13, 14 (Bunælurus; Plesiogale, on plate); p. 947, pl. lxviii, fig. 12 (B. osorum).

Matthew, W. D. 1899 A, p. 54.

Roger, O. 1896 A, p. 44 (Daphænos osorum); p. 59 (Bunælurus lagophagus).

Scott, W. B. 1893 A.

Trouessart, E. L. 1897 A, p. 264 (B. lagophagus, B. osorum); p. 296 (Daphænos osorum).

Zittel, K. A. 1893 B, p. 649.

Oligocene (White River); Colorado.

GALICTIS Bell. Type *Viverra vitata* (Schreber).

Bell, T., 1826, Zool. Journ., ii, p. 551.

Burmeister, H. 1879 B, p. 156.

Cope, E. D. 1867 C, p. 156. (Galera.)

Coues, E. 1877 A, p. 17.

Flower, W. H. 1869 B, p. 12. (Galera.)

Flower and Lydekker 1891 A, p. 579.

Gray, J. E. 1865 A, p. 121. (Galera.)

Mivart, St. G. 1885 B, p. 376.

Nehring, A. 1886 A, p. 177.

Nicholson and Lydekker 1889 A, p. 1423.

Schlosser, M. 1888 B, p. 114.

Zittel, K. A. 1893 B, p. 650.

Galictis macrodon Cope.

Cope, E. D. 1867 C, p. 156. (Galera.)

Cope and Wortman 1884 A, p. 5.

Coues, E. 1877 A, p. 17. (Galera.)

Leidy, J. 1869 A, p. 369, pl. xxx, figs. 1-3. (Galera.)

Roger, O. 1896 A, p. 60.

Trouessart, E. L. 1897 A, p. 264.

Wortman, J. L. 1883 B, p. 1001. (Putorius.)

Pleistocene; Maryland.

STENOGALE Schlosser. Type, none designated.

Schlosser, M. 1888 B, pp. 110, 116, 151.

Cope, E. D. 1890 I, p. 960.

Zittel, K. A. 1893 B, p. 647.

Stenogale robusta Cope.

Cope, E. D. 1890 I, p. 960.

Matthew, W. D. 1899 A, p. 68.

Trouessart, E. L. 1897 A, p. 267.

Miocene (Loup Fork); Nebraska.

PARICTIS Scott. Type *P. primævus* Scott.

Scott, W. B. 1893 A, p. 658. (Parietis, error.)

Parietis primævus Scott.

Scott, W. B. 1893 A, p. 658. (Parietis princeps, error.)

Matthew, W. D. 1899 A, p. 63.

Roger, O. 1896 A, p. 57.

Trouessart, E. L. 1897 A, p. 267.

Miocene (John Day); Oregon.

MUSTELA Linn. Type *M. martes* Linn.

Linnaeus, C., 1758, Syst. Nat. ed. 10, i, p. 45.

Baird, S. F. 1857 A, p. 149.

Blainville, H. M. D. 1864 A, ii, M, plates.

Coues, E. 1877 A, p. 59.

Filhol, H. 1891 A, p. 94.

Flower, W. H. 1869 B, p. 13.

Flower and Lydekker 1891 A, p. 94.

Gray, J. E. 1865 A, p. 110.

Lydekker, R. 1885 B, p. 176.

Mivart, St. G. 1885 B, p. 378.

Nicholson and Lydekker 1889 A, p. 1423.

Owen, R. 1868 A, p. 333.

Zittel, K. A. 1893 B, p. 648.

Mustela americana Turton.

Allen, J. A. 1876 C, p. 333.

Baird, S. F. 1857 A, p. 152, pl. xxxvii, fig. 1.

Coues, E. 1877 A, p. 81, pl. v. (Synonymy and literature.)

Gray, J. E. 1865 A, p. 106. (Martes.)

Trouessart, E. L. 1897 A, p. 272.

Recent; North America. Pleistocene or Recent, in caves; Pennsylvania, *vide* Allen.**Mustela diluviana Cope.**

Cope, E. D. 1899 A, p. 229, pl. xviii, figs. 5, 5a.

Pleistocene; Pennsylvania.

Mustela parviloba (Cope).

Cope, E. D. 1873 C, p. 1. (Elurodon mustelinus; not Mustela (Plesiogale) mustelina of Pomel.)

1874 B, p. 520. (Martes mustelinus.)

1874 P, p. 11. (Martes mustelinus.)

Coues, E. 1877 A, p. 16. (Mustela mustelinus.)

Matthew, W. D. 1899 A, p. 68.

Roger, O. 1896 A, p. 59. (Mustela mustelina.)

Scott and Osborn 1890 B, p. 71. ("M. parviloba Cope.")

Trouessart, E. L. 1897 A, p. 272. (M. parviloba.)

Miocene (Loup Fork); Colorado, Nebraska.

Mustela pennantii Erxleben.

Erxleben, C. P., 1777, Syst. Regn. Anim., p. 470.

Allen, J. A. 1876 C, p. 333.

Baird, S. F. 1857 A, p. 149, pl. xxxvi, fig. 1.

Coues, E. 1877 A, p. 62, pl. ii. (Synonymy and literature.)

Gray, J. E. 1865 A, p. 107. (Martes.)

Trouessart, E. L. 1897 A, p. 272.

PUTORIUS¹ Cuv. Type *Mustela putorius* Linn.

- Baird, S. F. 1867 A, p. 159.
 Coues, E. 1877 A, p. 96.
 Flower, W. H. 1883 D, p. 440.
 Flower and Lydekker 1891 A, p. 585.
 Gervais, P. 1859 A, p. 251.
 Gray, J. E. 1865 A, p. 109.
 1869 A, p. 87.
 Mivart, St. G. 1885 B, p. 379.
 Owen, R. 1843 A, p. 70.
 Schlosser, M. 1888 B, p. 111.
 Scott, W. B. 1888 A.
 Trouessart, E. L. 1897 A, p. 278.
 Zittel, K. A. 1893 B, p. 649.

Putorius nambianus Cope.

- Cope, E. D. 1874 I, p. 147. (Martes.)

- Cope, E. D. 1874 O, p. 16. (Martes.)
 1875 F, p. 68. (Mustela.)
 1877 K, p. 305, pl. lxi, fig. 3.
 Coues, E. 1877 A, p. 16. (Mustela.)
 Matthew, W. D. 1899 A, p. 68.
 Roger, O. 1896 A, p. 59. (Mustela.)
 Trouessart, E. L. 1897 A, p. 275.
 Miocene (Loup Fork); New Mexico.

Putorius vison (Schreber).

- Allen, J. A. 1876 C, p. 333.
 Baird, S. F. 1867 A, p. 177, pl. xxxvii, figs. 2, 3.
 Coues, E. 1877 A, p. 160. (Synonymy and literature.)
 Trouessart, E. L. 1897 A, p. 274.
 Recent; North America. In caves of Pennsylvania, *vide* Allen.

GULO Storr. Type *Ursus luscus* Linn.

- Baird, S. F. 1857 A, p. 180.
 Blainville, H. M. D. 1864 A, II M, p. 21, pls. iii, vii, ix-xiv.
 Flower, W. H. 1869 B.
 Flower and Lydekker 1891 A, p. 591.
 Gervais, P. 1859 A, p. 247.
 Gray, J. E. 1865 A, p. 120.
 Mivart, St. G. 1885 B, p. 381.
 Zittel, K. A. 1893 B, p. 649.

Gulo luscus (Linn.).

- Linnæus*, C., 1758, Syst. Nat., ed. 10, i, p. 47 (Ursus.)
 Baird, S. F. 1857 A, p. 181.
 Cope, E. D. 1899 A, p. 229.
 Flower and Lydekker 1891 A, p. 591.
 Recent; northern parts of North America.
 Pleistocene; Pennsylvania.

LUTRINÆ.

- Albrecht, P. 1879 A. (Lutridæ.)
 Baird, S. F. 1857 A, p. 183.
 Coues, E. 1877 A, pp. 5, 293.
 Flower, W. H. 1883 D, p. 439.
 Flower and Lydekker 1891 A, p. 567.
 Gill, T. 1872 B, pp. 65, 66.
 Gray, J. E. 1865 A, p. 123. (Lutrina.)

- Lydekker, R. 1884 A, p. 187.
 Mivart, St. G. 1885 B, p. 394.
 Nicholson and Lydekker 1889 A, p. 1426.
 Roger, O. 1896 A, p. 62.
 Trouessart, E. L. 1897 A, p. 281.
 Winge, H. 1895 B, pp. 47, 70. (Lutrinæ.)
 Zittel, K. A. 1893 B, p. 652.

POMATOTHERIUM E. Geoffroy. Type *P. valetoni* E. Geoffroy.

- Geoffroy, E., 1833, Rev. Encyc., lix, p. 80.
 Cope, E. D. 1890 I, p. 951. (Brachypsalis, type *B. pachycephalus*.)
 1896 F, p. 385.
 1899 A, p. 230.
 Lydekker, R. 1885 B, p. 190. (Syn. of Lutra.)
 Meyer, H. 1847, p. 182. (Stephanodon.)
 Nicholson and Lydekker 1889 A, p. 1427.
 Pomel, A. 1847 C, p. 380. (Lutricetus, type *Lutra valetoni*.)
 1853 A, p. 46. (Lutricetus.)
 Schlosser, M. 1888 B, p. 112.

- Zittel, K. A. 1893 B, p. 652. (Pomatotherium, Brachypsalis.)

Pomatotherium pachycephalum Cope.

- Cope, E. D. 1890 I, p. 951. (Brachypsalis.)
 1896 F, p. 385. (Pomatotherium?).
 Matthew, W. D. 1899 A, p. 68. (Brachypsalis pachygnathus.)
 Roger, O. 1896 A, p. 62. (Brachypsalis.)
 Trouessart, E. L. 1897 A, p. 281.
 Miocene (Loup Fork); Nebraska.

LUTRA Brisson. Type *Mustela lutra* Linn.

- Brisson, A. D., 1762, Regn. Anim., p. 201.
 Baird, S. F. 1857 A, p. 184.
 Barnston, G. 1863 A.
 Blainville, H. M. D. 1864 A, II M, p. 26, pls. v, viii, ix-xiv.
 Burmeister, H. 1879 B, p. 165.
 Coues, E. 1877 A, p. 294.

- Flower, W. H. 1869 B.
 1883 D, p. 439.
 Flower and Lydekker 1891 A, p. 467.
 Gray, J. E. 1865 A, p. 125.
 1869 A, p. 108.
 Lydekker, R. 1884 A, p. 187.
 1885 B, p. 190.

¹ *Putorius erminius* has been reported by Leidy (1889 H, p. 5) from a cave in Pennsylvania, in which by far the greater number of animals belong to species now living in the vicinity.

Martin, W. 1836 A
 Mivart, St. G. 1885 B, p. 383.
 Nicholson and Lydekker 1889 A, p. 1427.
 Owen, R. 1846 B, p. 119.
 1866 B, p. 491.
 Schlosser, M. 1888 B, p. 112.
 Winge, H. 1896 B, pp. 69, 91.
 Zittel, K. A. 1898 B, p. 658.

Lutra canadensis Schreber.

Allen, J. A. 1876 C, p. 333.
 Baird, S. F. 1857 A, p. 184, pl. xxxviii.
 Coues, E. 1877 A, p. 295, pl. xvii. (Synonymy and literature.)
 Trouessart, E. L. 1897 A, p. 285.
 Recent; North America. In caves of Pennsylvania, *vide* Allen.

Lutra piscinaria Leidy.

Leidy, J. 1873 B, p. 316, pl. xxxi, fig. 4; p. 230.
 Cope, E. D. 1878 H, p. 389. (Lutra, "near piscinaria.")
 1889 F.
 1889 S, p. 960.
 Coues, E. 1877 A, p. 323.
 Roger, O. 1896 A, p. 62.
 Trouessart, E. L. 1897 A, p. 285.
 Pliocene; Idaho.

Lutra rhoadsii Cope.

Cope, E. D. 1896 F, p. 391.
 1899 A, p. 238, pl. xviii, fig. 11.
 Trouessart, E. L. 1897 A, p. 285.
 Pleistocene; Pennsylvania.

LUTRICTIS Cope. Type *L. lycopotamicus* Cope.

Cope, E. D. 1879 B, p. 66.

Lutricitis lycopotamicus Cope.

Cope, E. D. 1879 B, p. 66.
 Matthew, W. D. 1899 A, p. 68.

Roger, O. 1896 A, p. 63. (Lutra.)
 Trouessart, E. L. 1897 A, p. 285. (Lutra.)
 Zittel, K. A. 1898 B, p. 654. (Lutra.)
 Miocene (Loup Fork); Oregon.

MEGENCEPHALON Osb., Scott, and Speir. Type *M. primævus* Osb., Scott, and Speir.

Osborn, Scott, and Speir 1878 A, p. 20.
 Cope, E. D. 1879 W, p. 83.
 Scott, W. B. 1888 B.

Megencephalon primævus Osb., Scott, and Speir.

Osborn, Scott, and Speir 1878 A, p. 20, pl. ix, fig. 87.

Bruce, A. T. 1883 A, p. 39, pl. vii, fig. 6.
 Cope, E. D. 1883 II, p. 970.
 Roger, O. 1896 A, p. 63.
 Trouessart, E. L. 1897 A, p. 287. (Megencephalum.)
 Eocene; Wyoming.

Superfamily **CYNOIDEA** Flower.

Flower, W. H. 1869 B, p. 24.
 Cope, E. D. 1882 D, p. 473. (Hypomycter, in part.)
 1884 O, pp. 890, 892. (Hypomycter, in part.)
 Flower, W. H. 1883 D, p. 437.
 Flower and Lydekker 1891 A, p. 544.
 Gill, T. 1872 B, p. 68.

Huxley, T. H. 1872 A, p. 358.
 Schlosser, M. 1888 B, p. 6.
 Tims, H. W. M. 1896 B, p. 462.
 Tomes, C. S. 1898 A, p. 464.
 Zittel, K. A. 1898 B, p. 618.

CANIDÆ

Baird, S. F. 1857 A, p. 102.
 Blainville, H. M. D. 1864 A, ii, P, pla. i-xiv.
 Cope, E. D. 1875 L, p. 21.
 1879 F.
 1881 C.
 1881 F.
 1882 D, p. 478.
 1883 T.
 1884 O, pp. 263, 892.
 1888 D.
 Cuvier, G. 1834 A, vii, p. 464.
 Filhol, H. 1883 A.
 Flower, W. H. 1869 B, p. 24.
 1871 B.
 1883 D, p. 437.
 Flower and Lydekker 1891 A, p. 544.
 Gadow, H. 1898 A, p. 50.
 Gill, T. 1872 B, pp. 57, 63.

Gray, J. E. 1868 B.
 1869 A, p. 178.
 Haeckel, E. 1895 A, p. 585. (Canida.)
 Humphreys, J. 1889 A, p. 156.
 Huxley, T. H. 1872 A, p. 358.
 1880 A.
 Lydekker, R. 1884 A, p. 240.
 1885 B, p. 106.
 Mivart, St. G. 1881 A, pp. 479, 491.
 Nicholson and Lydekker 1889 A, p. 1435.
 Noack, T. 1894 A.
 Owen, R. 1846 B, p. 475.
 1866 B.
 1868 A, p. 380.
 Parsons, F. G. 1899 A.
 1900 A.
 Roger, O. 1896 A, p. 42.
 Schlosser, M. 1888 B, pp. 3, 14, 18.

Schmidt, O. 1886 A, p. 259.

Scott, W. B. 1890 C.

1891 A, p. 6.

1891 B, p. 873.

1891 C, p. 66.

1897 A.

1898 B.

Steinmann and Döderlein 1890 A, p. 719.

Tims, H. W. M. 1896 A.

1896 B, p. 445.

Tornier, G. 1888 A.

Trouessart, E. L. 1897 A, p. 288.

Turner, H. N. 1848 A.

Waterhouse, G. R. 1839 A.

Weyhe, — 1875 A, p. 116.

Wilckens, M. 1885 D.

Winge, H. 1896 B, pp. 47, 63. (Caninl.)

Woodward, A. S. 1896 B, p. 389.

Wortman and Matthew 1899 A, p. 129.

Zittel, K. A. 1893 B, p. 619.

SIMOCYONINÆ.

Gill, T. 1872 B, pp. 59, 67. (Simocyonidæ.)

Roger, O. 1896 A, p. 50.

Trouessart, E. L. 1897 A, p. 291.

ENHYDROCYON Cope. Type *E. stenocephalus* Cope.

Cope, E. D. 1879 B, p. 56.

1879 F, pp. 179, 185.

1879 H, p. 181.

1881 C, p. 178.

1883 T, p. 245.

1884 O, pp. 893, 935.

Flower and Lydekker 1891 A, p. 562.

Nicholson and Lydekker 1889 A, p. 1433.

Schlosser, M. 1888 B, p. 61.

Scott, W. B. 1898 B, p. 414.

Wortman and Matthew 1899 A, p. 130.

Zittel, K. A. 1893 B, p. 633.

Enhydrocyon stenocephalus Cope.

Cope, E. D. 1879 B, p. 56.

1883 T, p. 245, fig. 12.

1884 O, p. 935, pl. lxix, figs. 3-5.

Matthew, W. D. 1899 A, p. 63.

Roger, O. 1896 A, p. 51.

Trouessart, E. L. 1897 A, p. 291.

Miocene (John Day); Oregon.

HYÆNOCYON Cope. Type *H. basiliatus* Cope.

Cope, E. D. 1879 E, p. 372.

1881 C, pp. 179, 181.

1881 P.

1883 T, p. 245.

1884 O, pp. 893, 942.

Flower and Lydekker 1891 A, p. 562.

Nicholson and Lydekker 1889 A, p. 1433.

Schlosser, M. 1888 B, p. 61.

1890 B, p. 26.

Wortman and Matthew 1899 A, p. 130.

Zittel, K. A. 1893 B, p. 633.

Hyæncyon basiliatus Cope.

Cope, E. D. 1879 B, p. 57, part. (Enhydrocyon.)

1879 E, p. 372, in part.

1881 C, p. 181, in part.

1883 T, p. 246, fig. 3c.

1884 O, p. 942, pl. lxxv, fig. 3.

Matthew, W. D. 1899 A, p. 63.

Roger, O. 1896 A, p. 50.

Schlosser, M. 1890 B, p. 25.

Trouessart, E. L. 1897 A, p. 292.

Miocene (John Day); Oregon.

Hyæncyon sectorius Cope.

Cope, E. D. 1883 T, p. 246, fig. 13d.

1879 B, p. 57, in part. (Enhydrocyon basiliatus.)

1879 E, p. 372, in part. (E. basiliatus.)

1881 C, p. 181, in part. (E. basiliatus.)

1884 O, p. 943, pl. lxx, fig. 1.

Matthew, W. D. 1899 A, p. 63.

Roger, O. 1896 A, p. 51.

Schlosser, M. 1890 B, p. 25.

Trouessart, E. L. 1897 A, p. 292.

Miocene (John Day); Oregon.

OLIGOBUNIS Cope. Type *Idiocyon crassivultus* Cope.

Cope, E. D. 1881 P, p. 497.

1883 T, p. 246.

1884 O, pp. 893, 939.

Nicholson and Lydekker 1889 A, p. 1433.

Schlosser, M. 1888 B, pp. 18, 60, 105.

Scott, W. B. 1898 B, p. 401.

Wortman and Matthew 1899 A, p. 131.

Zittel, K. A. 1893 B, p. 633.

Oligobunis crassivultus Cope.

Cope, E. D. 1879 F, p. 190. (Icticyon.)

Cope, E. D. 1881 C, p. 181. (Icticyon.)

1881 P, p. 497.

1883 T, p. 246, fig. 14.

1884 O, p. 940, pl. lxix, figs. 1, 2, text fig. 34.

Matthew, W. D. 1899 A, p. 63.

Roger, O. 1896 A, p. 51.

Schlosser, M. 1888 B, p. 105.

Trouessart, E. L. 1897 A, p. 292.

Zittel, K. A. 1893 B, p. 633, fig. 530.

Miocene (John Day); Oregon.

CANINÆ.

Cope, E. D. 1879 F.

Gill, T. 1872 B, p. 63.

Lydekker, R. 1884 A, p. 240.

Roger, O. 1896 A, p. 42.

Scott, W. B. 1890 C.

Trouessart, E. L. 1897 A, p. 293.

Zittel, K. A. 1893 B, p. 622.

CYNODICTIS Bravard and Pomel. Type *C. parisiensis* Pomel.

Bravard and Pomel, 1850, Notice Oss. foss. Débruge, p. 5.

Filhol, H. 1876 A, p. 66.
1883 A.

Flower and Lydekker 1891 A, p. 555.

Gervais, P. 1859 A, p. 216.

Huxley, T. H. 1880 A.

Lydekker, R. 1884 A, p. 243.

1885 B, p. 107.

Nicholson and Lydekker 1889 A, p. 1437.

Pomel, A. 1858 A, p. 66.

Roger, O. 1896 A, p. 42.

Schlösser, M. 1888 B, pp. 16, 23, 40.

1890 B, p. 45.

Scott, W. B. 1888 A.

1889 A, p. 21.

1889 B, p. 211.

1890 C, p. 38. (*Hesperocyon*.)

1895 C, p. 72.

1898 B, p. 364.

1899 B, p. 137.

Scott and Osborn 1887 B, p. 152.

Trouessart, E. L. 1897 A, p. 293.

Wilckens, M. 1885 D, p. 497.

Wortman and Matthew 1899 A, pp. 118, 130.

Woodward, A. S. 1898 B, p. 390.

Zittel, K. A. 1893 B, p. 622.

Cynodictis gregarius (Cope).

Cope, E. D. 1873 T, p. 3. (Canis.)

Bruce, A. T. 1883 A, p. 41, fig. 7. (Galecyon.)

Cope, E. D. 1873 CC, p. 9. (Canis.)

1874 B, p. 506. (Canis.)

1879 B, p. 58. (Canis.)

1879 D, p. 63. (Canis.)

1881 C, p. 181. (Galecyon.)

1883 F, p. 217. (Galecyon.)

1883 T, p. 241. (Galecyon.)

1884 O, pp. 915, 916, pl. lxviii, figs. 7-11; pl.

lxviii, figs. 5-8. (Galecyon.)

Matthew, W. D. 1899 A, p. 54.

Roger, O. 1896 A, p. 45. (Galecyon.)

Scott, W. B. 1898 B, p. 367, pl. xix, figs. 11-13; pl. xx, figs. 23-24.

Trouessart, E. L. 1897 A, p. 296. (Galecyon.)

Wortman and Matthew 1899 A, pp. 123, 130.

Oligocene (White River); Colorado, Nebraska, South Dakota: (John Day); Oregon, *Adæ* Cope.

Cynodictis hylactor Hay.

Hay, O. P. 1899 C, p. 254.

Cope, E. D. 1884 O, p. 916. (Syn. of *Galecyon gregarius*.)

Hayden, F. V. 1858 B, p. 158. (*Amphicyon gracilis*.)

Ledy, J. 1856 A, p. 90. (*Amphicyon gracilis*, not of Pomel.)

1869 A, pp. 36, 369, pl. i, fig. 7; pl. v, figs. 6-9. (*Amphicyon gracilis*.)

1871 C, p. 342. (*Amphicyon gracilis*.)

Matthew, W. D. 1899 A, p. 54. (Syn. of *C. lippincottianus*.)

Roger, O. 1896 A, p. 44. (*Daphænos gracilis*.)

Schlösser, M. 1888 B, p. 85. (*Amphicyon gracilis*.)

Scott and Osborn 1887 B, p. 152. (*C. gracilis*.)

Trouessart, E. L. 1897 A, p. 296. (*Daphænos gracilis*.)

Oligocene (White River); South Dakota.

Cynodictis lippincottianus (Cope).

Cope, E. D. 1873 CC, p. 9. (Canis.)

1874 B, p. 506. (Canis.)

1879 B, p. 58. (Canis.)

1879 D, p. 63. (Canis.)

1884 O, p. 919, pl. lxvii, figs. 5, 6. (Galecyon.)

Matthew, W. D. 1899 A, p. 54.

Roger, O. 1896 A, p. 45. (Galecyon.)

Scott, W. B. 1898 B, p. 400.

Wortman and Matthew 1899 A, pp. 123, 128, 130.

Oligocene (White River); Colorado, Oregon.

Cynodictis temnodon Wort. and Matth.

Wortman and Matthew 1899 A, p. 130.

Oligocene (White River); South Dakota.

NOTHOCYON¹ Matth.

Matthew, W. D. 1899 A, p. 62. (April 8.)

Wortman and Matthew 1899 A, pp. 124, 130, pl. vi. (June 21.)

Nothocyon geismarianus (Cope).

Cope, E. D. 1879 D, p. 71. (Canis.)

1879 B, p. 58. (Canis.)

1881 C, p. 181. (Galecyon.)

1883 T, p. 240, figs. 5, 6. (Galecyon.)

1884 O, pp. 915, 920, pl. lxx, figs. 2, 3; pl.

lxxa. (Galecyon.)

1889 C, p. 233, fig. 59. (Cynodictis.)

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 45. (Galecyon.)

Scott, W. B. 1898 B, p. 365. (Canis.)

Trouessart, E. L. 1897 A, p. 299. (Galecyon.)

Woodward, A. S. 1898 B, p. 391.

Wortman and Matthew 1899 A, pp. 127, 130.

Zittel, K. A. 1893 B, p. 626, fig. 524. (Galecyon.)

Miocene (John Day); Oregon.

Nothocyon latidens (Cope).

Cope, E. D. 1881 C, p. 181. (Galecyon.)

1883 T, p. 241. (Galecyon.)

1884 O, pp. 915, 930, pl. lxx, figs. 4, 5. (Galecyon.)

Matthew, W. D. 1899 A, p. 62.

Roger, O. 1896 A, p. 45. (Galecyon.)

Scott, W. B. 1898 B, p. 365. (Canis.)

Trouessart, E. L. 1897 A, p. 299. (Galecyon.)

Wortman and Matthew 1899 A, pp. 127, 130.

Miocene (John Day); Oregon.

¹Originally the three species here included were assigned to this genus by Matthew. No type was designated, but *Canis geismarianus* may be taken. Later, Wortman and Matthew include in the genus also *Canis parvidens* Mivart.

Nothocoyon lemur (Cope).

- Cope, E. D. 1879 E, p. 371. (Canis.)
 1881 C, p. 181. (Galecynus.)
 1883 T, p. 241, fig. 7. (Galecynus.)
 1884 O, pp. 915, 931, pl. lxx, figs. 6-8. (Galecynus.)

DAPHNENUS Leidy. Type *D. vetus* Leidy.

Leidy, J. 1853 D, p. 393.

This word is usually spelled *Daphænus*. The original form is given.

- Cope, E. D. 1884 O, p. 894. (Syn. of Amphicyon.)
 Eyerman, J. 1896 A, p. 279.
 Flower and Lydekker 1891 A, p. 555. (Daphænus.)
 Nicholson and Lydekker 1889 A, p. 1435.
 Roger, O. 1896 A, p. 44. (Daphænos.)
 Scott, W. B. 1899 B, p. 211.
 1890 C, p. 37.
 1891 A, p. 6.
 1897 A, p. 1.
 1898 B, p. 326.

- Trouessart, E. L. 1897 A, p. 296. (Daphænos.)
 Winge, H. 1896 A, pp. 46, 52, 91, 92.
 Wortman and Matthew 1899 A, pp. 115, 118, 129. (Daphænus.)
 Zittel, K. A. 1893 B, p. 625. (Daphænos.)

Daphænus angustidens (Marsh).

- Marsh, O. C. 1871 E, p. 124. (Amphicyon.)
 King, C. 1878 A, p. 411. (Amphicyon.)
 Lydekker, R. 1884 A, p. 247. (Amphicyon.)
 Matthew, W. D. 1899 A, p. 54. (Syn. of *Cynodictis hippocottianus*.)
 Roger, O. 1896 A, p. 44.
 Schlosser, M. 1890 B, pp. 62, 64. (Amphicyon.)
 Trouessart, E. L. 1897 A, p. 296. (Amphicyon.)
 Oligocene (White River); Nebraska.

Daphænus dodgei Scott.

- Scott, W. B. 1898 B, p. 362, pl. xix, figs. 6, 7. (Daphænus.)
 Wortman and Matthew 1899 A, p. 129. (Daphænus.)
 Oligocene (White River); Nebraska.

Daphænus felinus Scott.

- Scott, W. B. 1898 B, p. 361, pl. xx, figs. 15-17. (Daphænus.)
 Wortman and Matthew 1899 A, p. 129. (Daphænus.)
 Oligocene (White River); Nebraska.

Daphænus hartshornianus (Cope).

- Cope, E. D. 1873 CC, p. 9. (Canis.)

PARADAPHNENUS Matth. Type *Canis cuspidigerus* Cope.

- Matthew, W. D. 1899 A, p. 62. (April 8.)
 Wortman and Matthew 1899 A, p. 129. (June 21.)

Paradaphænus cuspidigerus (Cope).

- Cope, E. D. 1879 D, p. 70. (Canis.)
 1879 B, p. 58. (Canis.)
 1879 E, p. 372. (Amphicyon entoptychi.)
 1881 C, p. 178. (Amphicyon.)
 1883 T, p. 237, fig. 1. (Amphicyon.)
 1884 O, p. 896, pl. lxxviii, figs. 1-4. (Amphicyon.)
 Lydekker, R. 1884 A, p. 247. (Amphicyon cuspidigerus, A. entoptychi.)

- Matthew, W. D. 1899 A, p. 62.
 Roger, O. 1896 A, p. 45. (Galecynus.)
 Scott, W. B. 1898 B, p. 365. (Canis.)
 Trouessart, E. L. 1897 A, p. 299. (Galecynus.)
 Wortman and Matthew 1899 A, pp. 127, 130.
 Miocene (John Day); Oregon.

- Cope, E. D. 1874 B, p. 505. (Canis.)

- 1881 C, p. 178. (Canis.)
 1883 T, p. 237, figs. 2a, 3. (Amphicyon.)
 1884 O, pp. 896, 906. (Amphicyon.)
 Leidy, J. 1869 A, p. 32, in part; pl. i, figs. 3, 4, 6. (Amphicyon vetus=A. hartshornianus, *vide* Cope.)
 Lydekker, R. 1884 A, p. 247. (Amphicyon.)
 Matthew, W. D. 1899 A, pp. 52, 62. (Daphænus.)
 Roger, O. 1896 A, p. 44.
 Schlosser, M. 1888 B, p. 85. (Amphicyon.)
 Scott, W. B. 1890 C, p. 37. (Daphænus.)
 1898 B, p. 361, pl. xix, figs. 1-5; pl. xx, figs. 19-21a; p. 363, text fig. A, 2. (Daphænus.)
 Trouessart, E. L. 1897 A, p. 326. (Daphænos.)
 Wortman and Matthew 1899 A, p. 129. (Daphænus.)
 Oligocene (White River); Colorado, South Dakota.

Daphænus robustus Scott.

- Scott, W. B. 1897 A, p. 2. (Daphænus.)
 Oligocene (White River); Colorado.

Daphænus vetus Leidy.

- Leidy, J. 1853 D, p. 393.
 Cope, E. D. 1881 C, p. 178. (Amphicyon.)
 1883 T, p. 237. (Amphicyon.)
 1884 O, p. 894. (Amphicyon.)
 Hayden, F. V. 1858 B, p. 158. (Amphicyon.)
 King, C. 1878 A, p. 411. (Amphicyon.)
 Leidy, J. 1854 E, p. 157. (Amphicyon.)
 1869 A, pp. 32, 369, pl. i, figs. 1-6. (Amphicyon; see D. hartshornianus.)
 1871 C, p. 342. (Amphicyon.)
 Lydekker, R. 1884 A, p. 248. (Amphicyon.)
 Matthew, W. D. 1899 A, p. 53. (Daphænus.)
 Roger, O. 1896 A, p. 44. (Daphænos.)
 Schlosser, M. 1888 B, p. 85. (Amphicyon.)
 Scott, W. B. 1890 C, p. 37. (Daphænus.)
 1897 A, p. 1. (Daphænus.)
 1898 B, pl. xix, figs. 8-10. (Daphænus.)
 Trouessart, E. L. 1897 A, p. 296. (Daphænos.)
 Wortman and Matthew 1899 A, p. 129.
 Oligocene (White River); South Dakota, Colorado.

Paradaphænus Matth. Type *Canis cuspidigerus* Cope.

- Matthew, W. D. 1899 A, p. 62.
 Roger, O. 1896 A, p. 44. (Daphænos.)
 Scott, W. B. 1890 C, p. 37. (Daphænus.)
 Trouessart, E. L. 1897 A, p. 296. (Daphænos.)
 Wortman and Matthew 1899 A, p. 129.
 Miocene (John Day); Oregon.

Paradaphænus transversus Wort. and Matth.

- Wortman and Matthew 1899 A, p. 129.
 Miocene (John Day); Oregon.

TEMNOCYON Cope. Type *T. altigenis* Cope.

- Cope, E. D. 1879 D, p. 68.
 1879 F, pp. 178, 180.
 1881 C, pp. 178, 179.
 1883 T, p. 237.
 1884 O, pp. 893, 902.
 Eyerman, J. 1896 A, p. 267.
 Flower and Lydekker 1891 A, p. 555.
 Nicholson and Lydekker 1899 A, p. 1436.
 Schlosser, M. 1888 B, pp. 18, 23, 24, 56.
 Scott, W. B. 1890 C, p. 38.
 1897 A, p. 3.
 1898 B.
 Wortman and Matthew 1899 A, pp. 115, 130.
 Zittel, K. A. 1893 B, p. 626.

***Temnocyon altigenis* Cope.**

- Cope, E. D. 1879 D, p. 68.
 1879 B, p. 58.
 1881 C, p. 179.
 1883 T, p. 238, figs. 2, 3.
 1884 O, p. 903, pl. lxxviii, fig. 9; pl. lxx, fig. 11.
 Matthew, W. D. 1899 A, p. 62.
 Roger, O. 1896 A, p. 44.

- Trouessart, E. L. 1897 A, p. 296.
 Wortman and Matthew 1899 A, p. 180.
 Zittel, K. A. 1893 B, p. 625, fig. 523, C, D.
 Miocene (John Day); Oregon.

***Temnocyon ferox* Eyerman.**

- Eyerman, J. 1894 A.
 1896 A.
 Matthew, W. D. 1899 A, p. 62.
 Trouessart, E. L. 1897 A, p. 297.
 Wortman and Matthew 1899 A, p. 117, fig. 8, p. 130.
 Miocene (John Day); Oregon.

***Temnocyon wallovianus* Cope.**

- Cope, E. D. 1881 C, p. 179.
 1883 T, p. 239.
 1884 O, pp. 903, 906, pl. lxx, fig. 10.
 Matthew, W. D. 1899 A, p. 62.
 Roger, O. 1896 A, p. 44.
 Trouessart, E. L. 1897 A, p. 296.
 Wortman and Matthew 1899 A, p. 130.
 Zittel, K. A. 1893 B, p. 625, fig. 523 B.
 Miocene (John Day); Oregon.

MESOCYON Scott. Type *Temnocyon coryphaeus* Cope.

- Scott, W. B. 1890 C, p. 38.
 Eyerman, J. 1894 A. (Hypotemnodon, type *Temnocyon coryphaeus*.)
 1896 A, p. 284. (Hypotemnodon.)
 Hay, O. P. 1899 C, p. 254.
 Scott, W. B. 1897 A, p. 3. (Hypotemnodon.)
 1898 B. (Hypotemnodon.)
 Matthew, W. D. 1899 A, p. 63. (Hypotemnodon.)
 Trouessart, E. L. 1897 A, p. 297. (Hypotemnodon.)
 Wortman and Matthew 1899 A, pp. 118, 130. (Hypotemnodon.)

***Mesocyon coryphaeus* (Cope).**

- Cope, E. D. 1879 F, p. 180. (Temnocyon.)
 1879 B, p. 58. (Canis hartshornianus.)
 1881 C, p. 179. (Temnocyon.)
 1883 T, p. 239, fig. 4. (Temnocyon.)
 1884 O, pp. 903, 906, pl. lxxi; pl. lxxia, figs. 1-7; pl. lxxia, figs. 4-7. (Temnocyon.)
 Eyerman, J. 1894 A. (Hypotemnodon.)

- Eyerman, J. 1896 A, p. 284. (Hypotemnodon.)
 Hay, O. P. 1899 C, p. 253.
 Matthew, W. D. 1899 A, p. 63. (Hypotemnodon.)
 Scott, W. B. 1890 C, p. 39. (Mesocyon.)
 Trouessart, E. L. 1897 A, p. 297. (Hypotemnodon.)
 Wortman and Matthew 1899 A, p. 130. (Hypotemnodon.)
 Zittel, K. A. 1893 B, p. 625, fig. 523 A.
 Miocene (John Day) Oregon.

***Mesocyon josephi* (Cope).**

- Cope, E. D. 1881 C, p. 179. (Temnocyon.)
 1883 T, p. 239. (Temnocyon.)
 1884 O, pp. 903, 912, pl. lxx, fig. 9. (Temnocyon.)
 Matthew, W. D. 1899 A, p. 63.
 Roger, O. 1896 A, p. 44.
 Trouessart, E. L. 1897 A, p. 297. (Temnocyon.)
 Miocene (John Day); Oregon.

CYNODESMUS Scott. Type *C. thooides* Scott.

- Scott, W. B. 1893 B, p. 660.
 1895 C, p. 63.
 1897 A, p. 3.
 Wortman and Matthew 1899 A, p. 118.
***Cynodesmus thooides* Scott.**
 Scott, W. B. 1893 B, p. 660.

- Matthew, W. D. 1899 A, p. 54.
 Roger, O. 1896 A, p. 44.
 Scott, W. B. 1895 C, p. 63, pl. i, figs. 1-5.
 Trouessart, E. L. 1897 A, p. 297.
 Oligocene (White River); Montana.

ÆLURODON Leidy. Type *A. ferox* Leidy = *A. savus* Leidy.

- Leidy, J. 1858 E, p. 22.
 Cope, E. D. 1875 N, p. 256.
 1881 F, p. 387.
 1883 T, p. 243.
 1884 O, p. 893.

- Flower and Lydekker 1891 A, p. 562.
 Leidy, J. 1858 E, p. 21. (Subgenus *Epicyon*, type *Canis haydeni*.)
 1869 A, p. 68.
 1871 C, p. 344.

Nicholson and Lydekker 1889 A, p. 1433.

Schlosser, M. 1888 B, pp. 24, 61.

1890 B, p. 25. (Prohyæna, type *Canis wheel-
erianus* Cope.)

Scott, W. B. 1888 A.

1891 D, p. 90.

1892 A, p. 425.

1896 B, p. 402.

Scott and Osborn 1890 B, p. 66.

Trouessart, E. L. 1897 A, p. 297.

Zittel, K. A. 1893 B, p. 626.

***Æluroidon compressus* Cope.**

Cope, E. D. 1890 J, p. 1067.

Matthew, W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 45.

Scott and Osborn 1890 B, p. 67, fig. 2 A. (*Æ.
hysanoides*, not of Cope.)

Trouessart, E. L. 1897 A, p. 297.

Miocene (Loup Fork); Nebraska.

***Æluroidon haydeni* (Leidy).**

Leidy, J. 1858 E, p. 21. [*Canis* (Epicyon).]

Cope, E. D. 1874 P, p. 11. (*Canis*.)

1875 N, p. 256. (*Amphicyon*.)

1883 T, p. 242. (*Canis*.)

Hayden, F. V. 1858 B, p. 158. [*Canis* (Epicyon).]

Leidy, J. 1869 A, pp. 30, 368, pl. 1, fig. 10. [*Canis*
(Epicyon).]

1871 C, p. 341. (*Canis*.)

Matthew, W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 45.

Scott and Osborn 1890 B, p. 66, fig. 2 B.

Trouessart, E. L. 1897 A, p. 297.

Miocene (Loup Fork); Nebraska.

***Æluroidon hysanoides* Cope.**

Cope, E. D. 1881 F, p. 388.

1881 BB, p. 1023.

1883 T, p. 244, fig. 11.

1884 O, p. 945, fig. 35c.

Matthew, W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 45.

Schlosser, M. 1890 B, p. 25.

Trouessart, E. L. 1897 A, p. 298.

Miocene (Loup Fork); Kansas or Nebraska.

***Æluroidon meandrinus* Hatcher.**

Hatcher, J. B. 1894 C, p. 239.

Matthew W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 45.

Trouessart, E. L. 1897 A, p. 298.

Miocene (Loup Fork); Nebraska.

***Æluroidon sævus* (Leidy).**

Leidy, J. 1858 E, p. 21. (*Canis*.)

Cope, E. D. 1874 B, p. 519. (*Canis*.)

1874 P, p. 11. (*Canis*.)

1875 F, p. 68. (*Canis*.)

Cope, E. D. 1877 K, p. 302. (*Canis lupus*.)

1881 F, p. 387.

1883 T, p. 243, fig. 9.

1884 O, p. 945, text fig. 36.

1888 W, p. 1020.

1889 C, p. 234, fig. 60.

1890 J, p. 1067, pl. xxxii.

1896 B, p. 100, fig. 37.

Hayden, F. V. 1858 B, p. 158. (*Æluroidon* *Canis sævus*.)

King, C. 1878 A, p. 430. (*Canis*.)

Ledy, J. 1858 E, p. 21 (*Canis sævus*); p. 21
(*Æluroidon ferox*).

1869 A, pp. 28, 368, pl. 1, fig. 9 (*Canis sævus*);
pp. 68, 367, pl. 1, figs. 13, 14 (*Æluroidon
ferox*).

1870 V, p. 65. (*Æluroidon ferox?*)

1871 C, p. 341 (*Canis sævus*); p. 344 (*Æluroidon
ferox*).

Matthew, W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 45.

Schlosser, M. 1888 B, pp. 24, 61. (*Canis*.)

Scott and Osborn 1890 B, p. 66, figs. 1, 2.

Trouessart, E. L. 1897 A, p. 297.

Miocene (Loup Fork); Nebraska, New Mexico.

***Æluroidon taxoides* Hatcher.**

Hatcher, J. B. 1894 C, p. 236, pl. 1, fig. 2.

Matthew, W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 45.

Trouessart, E. L. 1897 A, p. 298.

Miocene (Loup Fork); Nebraska.

***Æluroidon ursinus* (Cope).**

Cope, E. D. 1875 N, p. 256. (*Canis*.)

1875 F, p. 68. (*Canis*.)

1877 K, p. 304, pl. lxi, fig. 1. (*Canis*.)

1879 A, p. 46. (*Amphicyon?*.)

1881 C, p. 178. (*Canis*.)

1883 T, p. 242. (*Canis*.)

1884 O, p. 39. (*Amphicyon*.)

Matthew, W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 45.

Scott and Osborn 1890 B, p. 68.

Trouessart, E. L. 1897 A, p. 298.

Miocene (Loup Fork); New Mexico, Nebraska.

***Æluroidon wheelerianus* Cope.**

Cope, E. D. 1877 K, p. 302, pl. lxi, fig. 2. (*Canis*.)

1881 F, p. 388.

1883 T, p. 244, fig. 11.

Matthew, W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 45.

Schlosser, M. 1890 B, p. 25. (*Prohyæna*.)

Scott and Osborn 1890 B, p. 67.

Trouessart, E. L. 1897 A, p. 297.

Zittel, K. A. 1893 B, p. 626.

Miocene (Loup Fork); New Mexico, Nebraska.

Canimartes Cope. Type *C. cumminsii* Cope.

Cope E. D. 1892 Y, p. 1029.

1892 I, p. 327.

1893 A, p. 51.

***Canimartes cumminsii* Cope.**

Cope, E. D. 1892 Y, p. 1029.

Cope, E. D. 1892 I, p. 327.

1893 A, p. 52, pl. xiv, figs. 12-14.

Matthew, W. D. 1899 A, p. 75.

Roger, O. 1896 A, p. 59.

Trouessart, E. L. 1897 A, p. 298.

Pliocene (Blanco); Texas.

TOMARCTUS Cope. Type *T. brevirostris* Cope.

Cope, E. D. 1873 T, p. 2.
1874 B, p. 519.
1879 F, pp. 179, 185.
1883 T, p. 243.

Nicholson and Lydekker 1889 A, p. 1433.

Tomarctus brevirostris Cope.

Cope, E. D. 1873 T, p. 2.

Cope, E. D. 1873 CC, p. 9.
1874 B, p. 520.
1874 P, p. 11.
1883 T, p. 243.

Matthew, W. D. 1899 A, p. 68.

Roger O. 1896 A, p. 55.

Miocene (Loup Fork); Colorado.

CANIS Linn. Type *C. familiaris* Linn.

Linnæus, C., 1758, Syst. Nat., ed. 10, i, p. 38.

Baird, S. F. 1857 A, p. 104.

Blainville, H. M. D. 1864 A, ii, P, plates.

Cope, E. D. 1877 K, p. 300.

1879 F, pp. 178, 184.

1881 C, p. 178.

1884 O, p. 893.

Cuvier, G. 1834 A, vii, p. 465.

Filhol, H. 1883 A.

Flower, W. H. 1869 B, p. 24.

1871 B.

1876 B, xiii, p. 487.

1883 D, p. 458.

1885 A.

Flower and Lydekker 1891 A, p. 546.

Gray, J. E. 1868 B, p. 508.

1869 A, p. 193.

Huxley, T. H. 1872 A, p. 353.

1880 A.

Leche, W. 1895 A, p. 60.

Lydekker, R. 1884 A, p. 252.

1885 B, p. 123.

Maggi, L. 1898 D.

1898 E, figs. 1-20.

Nicholson and Lydekker 1889 A, p. 1435.

Owen, R. 1868 A, p. 331, fig. 262.

Paulli, S. 1900 B, p. 489.

Pictet, F. J. 1853 A, p. 202.

Schlosser, M. 1888 B, p. 20.

Shufeldt, R. W. 1900 A, p. 395. (*Vulpes*.)

Steinmann, and Döderlein 1890 A, p. 720.

Trouessart, E. L. 1897 A, p. 299.

Wilckens, M. 1885 A, p. 518.

Winge, H. 1895 B, pp. 60, 91, 102, 108.

Wortman, J. L. 1886 A, p. 397.

Zittel, K. A. 1898 B, p. 627.

Canis? anceps Scott.

Scott, W. B. 1893 B, p. 660.

Matthew, W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 46.

Scott, W. B. 1895 C, p. 75.

Trouessart, E. L. 1897 A, p. 302.

Miocene (Loup Fork); Montana.

Canis brachypus Cope.

Cope, E. D. 1881 F, p. 389.

1883 T, p. 242, fig. 8.

1888 W.

Matthew, W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 48.

Miocene (Loup Fork); Wyoming.

Canis cinereoargenteus Schreber.

Allen, J. A. 1876 C, p. 333. (*Vulpes virginianus*.)

Baird, S. F. 1857 A, p. 139, pl. xxxv, fig. 1.

Cope, E. D. 1895 F, p. 447. (*Vulpes*.)

Leidy, J. 1869 A, p. 368. (*C. virginianus*.)

1889 H, p. 5. (*C. virginianus*.)

Redfield, W. C. 1850 A, p. 255. ("Vulpes"; may be not this species.)

Trouessart, E. L. 1897 A, p. 313. (*Urocyon*.)

Pleistocene; lead region of Illinois, New York?, Pennsylvania.

Canis dirus Allen.

Allen, J. A. 1876 A, p. 48.

Cope, E. D. 1877 K, p. 301.

Roger, O. 1896 A, p. 48.

Trouessart, E. L. 1897 A, p. 302.

Pleistocene; lead region of Upper Mississippi River.

Canis indianensis Leidy.

Leidy, J. 1869 A, p. 368.

Allen, J. A. 1876 A, p. 48 (*C. indianensis*, *C. primævus*); p. 49 (*C. mississippiensis*).

Cope, E. D. 1894 A, p. 453, pl. xxi, figs. 14-16.

1899 A, p. 227.

Cope and Wortman 1884 A, p. 9. (*C. lupus*.)

Leidy, J. 1864 I, p. 200. (*C. primævus*; name preoccupied.)

1856 T, p. 167, pl. xvii, figs. 11, 12. (*C. primævus*.)

1873 B, pp. 230, 315, pl. xxxi, fig. 2.

1873 F, p. 260.

Roger, O. 1896 A, p. 48. (*C. indianensis*, *C. mississippiensis*.)

Trouessart, E. L. 1897 A, p. 302. (*C. indianensis*, *C. mississippiensis*.)

Whitney, J. D. 1879 A, p. 246.

Yates, L. G. 1874 B, p. 18.

Pleistocene; Indiana, lead region of Upper Mississippi River; California (Leidy).

Canis latidentatus (Cope).

Cope, E. D. 1899 A, p. 228, pl. xviii, figs. 4, 4a. (*Vulpes*.)

Canis latrans Say.

Say, T., 1823, Long's Exped. R. Mts., i, p. 168.

Baird, S. F. 1857 A, p. 113, pl. lxxvi.

Cope, E. D. 1878 H, p. 389.

1883 T, p. 242.

1889 F, p. 161.

1889 S, p. 980.

Cope and Wortman 1884 A, p. 7.

Dana, J. D. 1879 A, p. 233.

Haeckel, E. 1895 A, p. 586.

Leidy, J. 1869 A, p. 369.

Trouessart, E. L. 1897 A, p. 304.

Whitney, J. D. 1879 A, p. 246.

Wyman, J. 1862 A, p. 422.

Recent; northern part of Mississippi Valley to Alberta. Pleistocene; Illinois, Indiana, Oregon.

Canis? marshii Hay.

Hay, O. P. 1899 C, p. 258.

Leidy, J. 1872 B, p. 356. (C. montanus.)

Lydekker, R. 1884 A, p. 253. (C. montanus.)

Marsh, O. C. 1871 E, p. 123. (C. montanus, not of Pearson.)

Matthew, W. D. 1899 A, pp. 40, 67. (C. montanus.)

Roger, O. 1896 A, p. 46. (C. montanus.)

Schlosser, M. 1890 B, pp. 62, 64. (C. montanus.)

Trouessart, E. L. 1897 A, p. 302. (C. montanusf.)

Eocene (Bridger); Wyoming.

The generic position of this species is uncertain, but the specific title *montanus* is not available.

Canis occidentalis Richardson.

Richardson, J., 1829, Fauna Bor.-Amer., p. 60.

Baird, S. F. 1857 A, p. 104, pl. xxxi.

Cope, E. D. 1883 T, p. 242. (C. lupus.)

Leidy, J. 1869 A, p. 368.

1889 H, p. 5. (C. lupus.)

Lydekker, R. 1884 A, p. 264. (C. lupusf.)

Trouessart, E. L. 1897 A, p. 302.

Williston, S. W. 1898 I, p. 92. (C. lupus.)

Wyman, J. 1862 A, p. 422.

Recent; North America. Pleistocene; lead region of Upper Mississippi River.

Canis priscolatrans Cope.

Cope, E. D. 1899 A, p. 227 pl. xviii, figs. 8-3g.

Pleistocene; Pennsylvania.

Canis temerarius Leidy.

Leidy, J. 1858 E, p. 21.

Cope, E. D. 1883 T, p. 242.

1884 O, p. 915.

Hayden, F. V. 1858 B, p. 158.

King, C. 1878 A, p. 430.

Leidy, J. 1869 A, pp. 29, 368, pl. i, fig. 12.

1871 C, p. 341.

Matthew, W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 48.

Trouessart, E. L. 1897 A, p. 302.

Miocene (Loup Fork); Nebraska, Colorado.

Canis vafer Leidy.

Leidy, J. 1858 E, p. 21.

Cope, E. D. 1875 F, p. 68.

1877 K, pp. 301, 302.

1884 O, p. 915.

Hayden, F. V. 1858 B, p. 158.

Leidy, J. 1869 A, pp. 29, 368, pl. i, fig. 11.

1871 C, p. 341.

1873 B, p. 315.

Matthew, W. D. 1899 A, p. 67.

Roger, O. 1896 A, p. 48.

Schlosser, M. 1888 B, p. 28.

Scott and Osborn 1890 B, p. 69, fig. 3. (C. vaferf.)

Trouessart, E. L. 1897 A, p. 310. (Vulpes.)

Miocene (Loup Fork); Nebraska.

PACHYCYON Allen. Type *P. robustus* Allen.

Allen, J. A. 1885 A, p. 1.

Pachycyon robustus Allen.

Allen, J. A. 1885 A, p. 1, pls. i-iii.

Cope, E. D. 1886 G.

Trouessart, E. L. 1897 A, p. 302. (Canis.)

Pleistocene; Virginia.

HYÆNIDÆ.

Blainville, H. M. D. 1864 A, ii, Q, pls. i-viii.

Cope, E. D. 1882 D, p. 474.

1884 O, p. 892.

1888 D, p. 256.

Flower and Lydekker 1891 A, p. 540.

Gill, T. 1872 B, p. 57.

Gray, J. E. 1869 A, p. 211.

Haeckel, E. 1896 A, p. 578. (Hyænida.)

Lydekker, R. 1884 A, p. 274.

1885 B, p. 68.

Mivart, St. G. 1881 A.

1882 A.

Nicholson and Lydekker 1889 A, p. 1440.

Owen, R. 1845 B, p. 482.

Roger, O. 1896 A, p. 65.

Schlosser, M. 1888 B, pp. 4, 14.

1890 B, p. 24.

1890 C, p. 265.

Tomes, C. S. 1898 A, p. 467.

Trouessart, E. L. 1897 A, p. 317.

Turner, H. N. 1848 A.

Waterhouse, G. R. 1839 A.

Winge, H. 1896 B, pp. 47, 59.

Woodward, A. S. 1898 B, p. 397.

Zittel, K. A. 1893 B, p. 660.

BOROPHAGUS Cope. Type *B. diversidens* Cope.

Cope, E. D. 1892 Y, p. 1023.

1892 I, p. 326.

1898 A, p. 52.

Borophagus diversidens Cope.

Cope, E. D. 1892 Y, p. 1023.

Cope, E. D. 1892 I, p. 326.

1898 A, p. 54, pl. xlii, fig. 4.

Matthew, W. D. 1899 A, p. 75.

Roger, O. 1896 A, p. 66. [Hyaena (Borophagus).]

Trouessart, E. L. 1897 A, p. 320.

Pliocene (Blanco); Texas.

Superfamily *ÆLUROIDEA* Flower.

- Flower, W. H. 1869 B, p. 22.
 Cope, E. D. 1882 D, p. 473. (Eplimyceteri.)
 1884 O, pp. 890, 892. (Eplimyceteri.)
 Flower, W. H. 1883 D, p. 434.
 Flower and Lydekker 1891 A, p. 501.
 Huxley, T. H. 1872 A, p. 358.
- Mivart, St. G. 1881 A, p. 474.
 1882 A.
 Schlosser, M. 1888 B, p. 6.
 1890 C, p. 265.
 Tims, H. W. M. 1896 B, p. 462.

FELIDÆ.

- Adams, G. I. 1896 A.
 Baird, S. F. 1867 A, p. 80.
 Blainville, H. M. D. 1864 A, il, O, pls. i-xix.
 Cope, E. D. 1879 F.
 1880 D, pp. 834, 851.
 1881 C.
 1882 D, p. 474.
 1884 O, pp. 263, 892.
 1888 D.
 Cuvier, G. 1834 A, vii, p. 361.
 Flower, W. H. 1876 B, xiii, p. 488.
 1883 D, p. 434.
 Flower and Lydekker 1891 A, p. 502.
 Gill, T. 1872 B, p. 57.
 Gray, J. E. 1869 A, p. 5.
 Haeckel, E. 1896 A, p. 587. (Felida.)
 Lydekker, R. 1884 A, p. 313.
 Mivart, St. G. 1881 A, p. 439.
 1882 A.
 Nicholson and Lydekker 1889 A, p. 1443.
- Osborn and Wortman 1892 A, p. 94.
 Owen, R. 1845 B, p. 486.
 Parsons, F. G. 1899 A.
 1900 A.
 Roger, O. 1889 A.
 1896 A, p. 66.
 Scheldt, P. 1894 A.
 Schlosser, M. 1888 B, pp. 4, 14.
 1890 B, p. 34.
 Scott, W. B. 1889 B, p. 235.
 Slade, D. D. 1890 A.
 Steinmann and Döderlein 1890 A, p. 725.
 Toms, C. S. 1898 A, p. 469.
 Turner, H. N. 1848 A.
 Waterhouse, G. R. 1839 A.
 Weyhe, —, 1875 A, p. 116.
 Williston, S. W. 1896 K.
 Winge, H. 1896 B, pp. 47, 58.
 Woodward, A. S. 1898 B, p. 398.
 Zittel, K. A. 1893 B, pp. 663, 677.

MACHAIRODONTINÆ.

- Adams, G. I. 1896 A, p. 443. (Machærodontinæ.)
 Cope, E. D. 1880 D, p. 835. (Nimravidæ.)
 1881 C. (Nimravidæ.)
 1882 D, p. 474. (Nimravidæ.)
 1884 O, pp. 892, 947. (Nimravidæ.)
 Gill, T. 1872 B, pp. 59, 60. (Machærodontinæ.)
 Lydekker, R. 1885 E, p. 469. (Nimravidæ.)
 Mivart, St. G. 1881 A, p. 439. (Nimravidæ.)
 Nicholson and Lydekker 1889 A, p. 1443. (Nimravidæ.)
 Osborn and Wortman 1892 A. (Nimravidæ.)
 Roger, O. 1896 A, p. 67. (Machærodontinæ.)
 Schlosser, M. 1890 B, p. 38. (Nimravidæ.)
- Scott, W. B. 1888 A. (Nimravidæ.)
 1889 B, p. 238. (Nimravidæ.)
 1892 A, p. 425. (Nimravidæ.)
 1896 B, p. 404.
 Scott and Osborn 1887 B, p. 153. (Nimravidæ.)
 Steinmann and Döderlein 1890 A, p. 726. (Nimravidæ.)
 Trouessart, E. L. 1897 A, p. 343. (Machærodontinæ.)
 Winge, H. 1896 B, pp. 47, 55, 56.
 Woodward, A. S. 1898 B, p. 399. (Nimravidæ, or Machærodontidæ.)
 Zittel, K. A. 1893 B, p. 667.

MACHAIRODUS Kaup. Type *M. neogæus* Lund.

- Kaup, J., 1833 Oss. foss. Mus. Darmstadt.
 The name of this genus is commonly spelled *Machærodus*.
 Adams, G. I. 1896 A, p. 432.
 1897 A, p. 147.
 Brown, H. G. 1838 A, p. 1277, pl. xlv, fig. 4.
 Burmeister, H. 1866 B, p. 123.
 1879 B, p. 106.
 Cope, E. D. 1879 F, p. 171.
 Dawkins and Sanford 1872 A, p. 184.
 Filhol H. 1891 A, p. 47.
 Gervais, P. 1859 A, p. 230.
 Hartmann, R. 1893 A.
 Kittl, E. 1887 A, p. 321.
 Leidy, J. 1854 A, pp. 95, 115.
- Lydekker, R. 1884 A, p. 332.
 1885 B, p. 41.
 March, O. C. 1877 E.
 Nicholson and Lydekker 1889 A, p. 1449.
 Owen, R. 1845 B, p. 490.
 1846 B, p. 174.
 1847 C, p. 67.
 1868 A, p. 339.
 Pictet, F. J. 1853 A, p. 230.
 Quenstedt, F. A. 1885 A, p. 42.
 Steinmann and Döderlein 1890 A, p. 727.
 Trouessart, E. L. 1897 A, p. 347.
 Winge, H. 1896 B, pp. 47, 56, 91.
 Zittel, K. A. 1893 B, p. 673.

Machairodus gracilis Cope.

- Cope, *E. D.* 1880 D, p. 857. (Smilodon.)
 1896 F, p. 448. (Smilodon.)
 1899 A, p. 240, pl. xx, fig. 1.
 Cope and Wortman 1884 A, p. 5. (Smilodon.)
 Cragin, F. W. 1892 B, p. 17. (Machærodus.)
 Lydekker, R. 1884 A, p. 833. (Machærodus.)
 Roger, O. 1896 A, p. 70. (Machærodus.)
 Trouessart, E. L. 1897 A, p. 849.
 Pleistocene; Pennsylvania.

Machairodus mercerii Cope.

- Cope, *E. D.* 1895 F, p. 448. (Uncia.)
 1896 F, p. 392. (Uncia mercerii, in part.)
 1899 A, p. 240 (Machærodus); p. 245, pl. xx, figs. 2-2c (Smilodon).
 Roger, O. 1896 A, p. 72. (Felis.)
 Trouessart, E. L. 1897 A, p. 351. (Felis.)
 Pleistocene; Pennsylvania.

ÆLUROTHERIUM Adams. Type *Patriofelis leidyana* Osb. and Wort.

Adams, G. I. 1896 A, p. 442.

Æluotherium leidyanum (Osb. and Wort.).

- Osborn and Wortman 1892 A, p. 98, fig. 5. (Patriofelis.)
 Adams, G. I. 1896 A, p. 442.

- Matthew, W. D. 1899 A, p. 41.
 Roger, O. 1896 A, p. 37. (Patriofelis.)
 Scott, W. B. 1892 B, p. 313. (Genus doubtful.)
 Trouessart, E. L. 1897 A, p. 231 (Patriofelis); p. 344 (Æluotherium).
 Wortman, J. L. 1894 A, p. 164. (Not Patriofelis.)
 Eocene (Bridger); Wyoming.

EUSMILUS Gerv. Type *E. bidentatus* (Filhol).

- Gervais, 1875, Jour. Zool., iv, p. 419.
 Cope, *E. D.* 1884 O, p. 948.
 Flower, W. H. 1883 D, p. 435.
 Flower and Lydekker 1891 A, p. 524.
 Hatcher, J. B. 1895 A.
 Lydekker, R. 1884 A, p. 332.
 Mivart, St. G. 1881 A, p. 437.
 Schlosser, M. 1890 B, p. 48.
 Trouessart, E. L. 1897 A, p. 346.

Zittel, K. A. 1893 B, p. 672.

Eusmilus dakotensis Hatcher.

- Hatcher, J. B. 1895 B.
 Adams, G. I. 1896 B, p. 48, pl. ii, fig. 3.
 Matthew, W. D. 1899 A, p. 56.
 Trouessart, E. L. 1897 A, p. 346.
 Oligocene (White River); South Dakota.

HOPLOPHONEUS Cope. Type *Machærodus oreodontis* Cope.

- Cope, *E. D.* 1874 B, p. 509.
 Adams, G. I. 1896 A.
 1896 B.
 Cope, *E. D.* 1879 F, pp. 170, 171.
 1880 D, pp. 836, 849.
 1881 C, p. 167.
 1884 O, pp. 948, 992.
 Flower and Lydekker 1891 A, p. 524.
 Leidy, J. 1869 A, p. 53. (Drepanodon.)
 1871 C, p. 343. (Drepanodon.)
 Mivart, St. G. 1881 A, pp. 433, 439.
 Nicholson and Lydekker 1889 A, p. 1446.
 Osborn and Wortman 1894 A, p. 227.
 Schlosser, M. 1890 B, p. 48.
 Scott, W. B. 1889 B.
 1898 B, p. 411.
 Scott and Osborn 1887 B, p. 158, text fig. 2.
 Steinmann and Döderlein 1890 A, p. 727.
 Williston, S. W. 1895 A, p. 170. (Dinotomius, type *D. atrox* Willist.)
 Winge, H. 1895 B, pp. 47, 55, 91.
 Wortman, J. L. 1893 A.
 Zittel, K. A. 1893 B, p. 672.

Hoplophoneus catocopsis (Cope).

- Cope, *E. D.* 1887 P, p. 1019. (Machærodus.)
 Adams, G. I. 1896 A, p. 433.
 Cope, *E. D.* 1892 AA. (Machærodus.)
 Matthew, W. D. 1899 A, p. 68. (Machærodus.)
 Roger, O. 1896 A, p. 70. (Machærodus.)
 Trouessart, E. L. 1897 A, p. 346.
 Miocene (Loup Fork); Kansas.

Hoplophoneus cerebralis Cope.

- Cope, *E. D.* 1880 F, p. 143. (Machærodus.)
 Adams, G. I. 1896 A, p. 429, pl. xi, fig. 1.
 1896 B, p. 50, pl. i, fig. 1.
 Cope, *E. D.* 1880 D, p. 850.
 1884 O, pp. 976, 997, pl. lxxv, figs. 3-5.
 Matthew, W. D. 1899 A, p. 63.
 Roger, O. 1896 A, p. 68.
 Trouessart, E. L. 1897 A, p. 345.
 Miocene (John Day); Oregon.

Hoplophoneus crassidens (Cragin).

- Cragin, F. W. 1892 B, p. 17. (Machærodus.)
 Adams, G. I. 1896 A, p. 433.
 Matthew, W. D. 1899 A, p. 56.
 Trouessart, E. L. 1897 A, p. 346.
 Williston, S. W. 1895 A, p. 174, pl. xix. (Machærodus.)
 Miocene? (Loup Fork?); Kansas.

Hoplophoneus insolens Adams.

- Adams, G. I. 1896 A, p. 429, pl. xi, fig. 5.
 1896 B, p. 48, pl. i, fig. 5.
 Matthew, W. D. 1899 A, p. 56.
 Osborn and Wortman 1894 A, p. 227. (H. occidentalis, not of Leidy.)
 Trouessart, E. L. 1897 A, p. 346.
 Oligocene (White River); South Dakota.

Hoplophoneus occidentalis (Leidy).

- Leidy, J. 1869 A, pp. 63, 367, pl. v, fig. 5. (Drepanodon.)

- Adams, G. I. 1896 A, p. 428, pl. xi, fig. 6.
 1896 B, p. 47, pl. i, fig. 6; pl. ii, figs. 1, 2.
 Cope, E. D. 1884 O, p. 993.
 Leidy, J. 1866 A, p. 345. (*Drepanodon occidentalis*; no description.)
 1871 C, p. 343. (*Drepanodon*.)
 Matthew, W. D. 1899 A, p. 54.
 Riggs, E. S. 1896 A, pl. i.
 Roger, O. 1896 A, p. 68.
 Scott and Osborn 1887 B, p. 154.
 Trouessart, E. L. 1897 A, p. 346.
 Williston, S. W. 1896 A, p. 170, pl. xviii. (*Dinotomus atrox*.)
 1898 K, p. 349, figure.
 Oligocene (White River); South Dakota.

Hoplophoneus oreodontis Cope.

- Cope, E. D. 1873 CC, p. 9. (*Machærodus*.)
 Adams, G. I. 1896 A, p. 429, pl. xi, fig. 2.
 1896 B, p. 50, pl. i, fig. 2.
 Bruce, A. T. 1883 A, p. 42, fig. 8.
 Cope, E. D. 1874 B, p. 509.
 1874 F, p. 23.
 1880 D, p. 850.
 1884 O, pp. 976, 993, pl. lxvii, fig. 17; pl. lxxv, figs. 1, 2.
 Matthew, W. D. 1899 A, p. 55.
 Mivart, St. G. 1881 A, p. 434, fig. 185.
 Roger, O. 1896 A, p. 68.
 Trouessart, E. L. 1897 A, p. 345.
 Oligocene (White River); Colorado.

Hoplophoneus primævus (Leidy).

- Leidy, J. 1851 H, p. 329. (*Machairodus*.)
 Adams, G. I. 1896 A, p. 419, pl. x; pl. xi, fig. 3.
 1896 B, p. 49, pl. i, fig. 4.
 Cope, E. D. 1880 D, p. 850.
 1884 O, p. 993.
 Hayden, F. V. 1868 B, p. 158.
 King, C. 1878 A, p. 411. (*Drepanodon*.)

- Leidy, J. 1862 Jp, p. 564, pl. xii A, fig. 5. (*Machairodus*.)
 1863 D, p. 392. (*Machairodus*.)
 1864 A, pp. 94, 115, pl. xviii. (*Machairodus*.)
 1864 E, p. 156. (*Machairodus*.)
 1867 D, p. 176. (*Drepanodon*.)
 1869 A, pp. 54, 367, pl. i, fig. 8. (*Drepanodon*.)
 1871 C, p. 343. (*Drepanodon*.)
 Matthew, W. D. 1899 A, p. 75.
 Osborn, H. F. 1896 Q, p. 11.
 Roger, O. 1896 A, p. 68.
 Scott and Osborn, 1887 B, p. 153, pl. i.
 Trouessart, E. L. 1897 A, p. 345.
 Oligocene (White River); South Dakota.

Hoplophoneus robustus Adams.

- Adams, G. I. 1896 B, p. 49, pl. i, fig. 4.
 1896 A, p. 428, pl. xi, fig. 4.
 Leidy, J. 1869 A, p. 54 (in part); pl. iv, fig. 1.
 Matthew, W. D. 1899 A, p. 55.
 Osborn and Wortman 1894 A, p. 227. (*H. primævus*, not of Leidy.)
 Trouessart, E. L. 1897 A, p. 346.
 Oligocene (White River); South Dakota, Nebraska.

Hoplophoneus strigidens Cope.

- Cope, E. D. 1879 D, p. 71. (*Machærodus*.)
 Adams, G. I. 1896 A, p. 429.
 Cope, E. D. 1879 B, p. 56. (*Machærodus*.)
 1879 X, p. 798a. (*Machærodus*.)
 1880 D, p. 351.
 1884 O, p. 1001, pl. lxxv, fig. 6.
 Matthew, W. D. 1899 A, p. 63.
 Roger, O. 1896 A, p. 68.
 Trouessart, E. L. 1897 A, p. 346.
 Miocene (John Day); Oregon.
 The generic position of this species is doubtful.

DEINICTIS Leidy. Type *D. felina* Leidy.

- Leidy, J. 1866 H, p. 91.
 Most authors have adopted the spelling *Deinictis*. The original name is *Deinictis*.
 Adams, G. I. 1896 A.
 Allen, H. 1888 A.
 Cope, E. D. 1873 T, p. 2. (*Daptophilus*, type *D. aequalidens* Cope.)
 1874 B, p. 508. (*Daptophilus*.)
 1879 F, pp. 169, 170.
 1880 D, pp. 836, 845 (*Deinictis*); pp. 836, 847 (*Pogonodon*.)
 1880 F, p. 143 (*Deinictis*; *Pogonodon*, type *P. platycopis*.)
 1881 C, p. 167. (*Deinictis*, *Pogonodon*.)
 1884 O, pp. 948, 973 (*Deinictis*); pp. 948, 961 (*Pogonodon*.)
 Flower and Lydekker 1891 A, p. 523 (*Deinictis*); p. 524 (*Pogonodon*.)
 Gaudry, A. 1878 B, p. 220. (*Deinictis*.)
 Leidy, J. 1864 D, p. 127. (*Deinictis*; no description.)
 1869 A, p. 64. (*Deinictis*.)

- Leidy, J. 1871 C, p. 343. (*Deinictis*.)
 Mivart, St. G. 1881 A, pp. 435, 439 (*Deinictis*); pp. 437, 439 (*Pogonodon*.)
 Nicholson and Lydekker 1889 A, p. 1444 (*Deinictis*); p. 1446 (*Pogonodon*.)
 Schlosser, M. 1890 B, p. 42.
 Scott, W. B. 1892 A, p. 425.
 Steinmann and Döderlein, 1890 A, p. 726 (*Deinictis*); p. 727 (*Pogonodon*.)
 Trouessart, E. L. 1897 A, p. 344.
 Williston, S. W. 1896 A, p. 173, figure.
 Winge, H. 1896 B, pp. 47, 55, 91.
 Zittel, K. A. 1893 B, p. 669 (*Deinictis*); p. 671 (*Pogonodon*.)

Deinictis bombifrons Adams.

- Adams, G. I. 1896 A, p. 577, pl. xxvi. (*Deinictis*.)
 Matthew, W. D. 1899 A, p. 54. (*Deinictis*.)
 Roger, O. 1896 A, p. 68. (*Deinictis*.)
 Trouessart, E. L. 1897 A, p. 345. (*Deinictis*.)
 Oligocene (White River); South Dakota?

Deinictis brachyops (Cope).

- Cope, E. D. 1879 D, p. 72, in part. (*Machærodus*.)
 Adams, G. I. 1896 A, p. 431, pl. xii, fig. 5. (*Dinictis*.)
 Cope, E. D. 1879 B, p. 56. (*Hoplophoneus*.)
 1879 K, p. 197. (*Hoplophoneus*.)
 1880 D, pp. 843, 849, fig. 11. (*Pogonodon*.)
 1884 O, pp. 972, 987, pl. lxxiv, figs. 3-10. (*Pogonodon*.)
 Matthew, W. D. 1899 A, p. 63. (*Pogonodon*.)
 Roger, O. 1896 A, p. 68. (*Pogonodon*.)
 Trouessart, E. L. 1897 A, p. 345. (*Dinictis*.)
 Miocene (John Day); Oregon.

Deinictis cyclops Cope.

- Cope, E. D. 1879 F, p. 176. (*Dinictis*.)
 Adams, G. I. 1896 A, p. 430, pl. xii, fig. 2. (*Dinictis*.)
 Cope, E. D. 1880 D, p. 846, fig. 8. (*Dinictis*.)
 1884 O, p. 974, pl. lxxv, fig. 1. (*Dinictis*.)
 Matthew, W. D. 1899 A, p. 63.
 Mivart, St. G. 1881 A, p. 435. (*Dinictis*.)
 Roger, O. 1896 A, p. 67.
 Trouessart, E. L. 1897 A, p. 344. (*Dinictis*.)
 Zittel, K. A. 1893 B, p. 670, fig. 560. (*Dinictis*.)
 Oligocene (John Day); Oregon.

Deinictis felina Leidy.

- Leidy, J. 1856 H, p. 91.
 Adams, G. I. 1896 A, p. 430, pl. xii, fig. 3. (*Dinictis*.)
 Cope, E. D. 1879 F, p. 176. (*Dinictis*.)
 1880 D, p. 846. (*Dinictis*.)
 1884 O, pp. 974, 978. (*Dinictis*.)
 Gaudry, A. 1878 B, p. 220, fig. 292.
 Hayden, F. V. 1858 B, p. 158.
 King, C. 1878 A, p. 411. (*Dinictis*.)
 Leidy, J. 1854 D, p. 127. (*Dinictis*; no description.)
 1869 A, pp. 64, 368, pl. v, figs. 1-4. (*Dinictis*.)
 1871 C, p. 348. (*Dinictis*.)
 Matthew, W. D. 1899 A, p. 54. (*Dinictis*.)
 Roger, O. 1896 A, p. 67. (*Dinictis*.)
 Schlosser, M. 1890 B, p. 41.
 Scott, W. B. 1899 A. (*Dinictis*.)
 Scott and Osborn 1887 B, p. 153. (*Dinictis*.)
 Trouessart, E. L. 1897 A, p. 344. (*Dinictis*.)
 Zittel, K. A. 1893 B, p. 669, fig. 559. (*Dinictis*.)
 Oligocene (White River); South Dakota, Colorado.

Deinictis fortis Adams.

- Adams, G. I. 1896 A, p. 574, text fig. 1. (*Dinictis*.)
 1896 A, pp. 430, 436, pl. xii, fig. 4. (*Dinictis*.)
 Matthew, W. D. 1899 A, p. 54. (*Dinictis*.)
 Roger, O. 1896 A, p. 68. (*Dinictis*.)
 Trouessart, E. L. 1897 A, p. 345. (*Dinictis*.)
 Oligocene (White River); Colorado.

Deinictis major Lucas.

- Lucas, F. A. 1896 A, p. 399. (*Dinictis*.)
 Oligocene (White River); Nebraska.

Deinictis paucidens Riggs.

- Riggs, E. S. 1896 B, p. 237. (*Dinictis*.)
 Adams, G. I. 1896 A, p. 436, footnote. (Syn. of *D. fortis*.)
 Matthew, W. D. 1899 A, p. 54. (*Dinictis*.)
 Oligocene (White River).

Deinictis platycopis (Cope).

- Cope, E. D. 1879 X, p. 798b. (*Hoplophoneus*.)
 Adams, G. I. 1896 A, p. 431, pl. xii, fig. 6. (*Dinictis*.)
 Cope, E. D. 1879 E, p. 373. (*Hoplophoneus*.)
 1880 D, p. 847, fig. 9. (*Pogonodon*.)
 1880 F, p. 143. (*Pogonodon*.)
 1884 O, p. 982, text fig. 38, pl. lxxiv. (*Pogonodon*.)
 Matthew, W. D. 1899 A, p. 63. (*Pogonodon*.)
 Mivart, St. G. 1881 A, p. 189. (*Pogonodon*.)
 Roger, O. 1896 A, p. 68. (*Pogonodon*.)
 Trouessart, E. L. 1897 A, p. 345. (*Dinictis*.)
 Zittel, K. A. 1893 B, p. 671, fig. 562. (*Pogonodon platycopsis*.)
 Miocene (John Day); Oregon.

Deinictis squalidens Cope.

- Cope, E. D. 1873 T, p. 2. (*Daptophilus*.)
 Adams, G. I. 1896 A, p. 430, pl. xii, fig. 1. (*Dinictis*.)
 Cope, E. D. 1873 CC, p. 9. (*Daptophilus*.)
 1874 B, p. 508. (*Daptophilus*.)
 1879 F, p. 176. (*Dinictis*.)
 1880 D, p. 847. (*Dinictis*.)
 1884 O, pp. 974, 979, pl. lxxvii, figs. 15, 16. (*Dinictis*.)
 Matthew, W. D. 1899 A, p. 54. (*Dinictis*.)
 Roger, O. 1896 A, p. 68. (*Dinictis*.)
 Trouessart, E. L. 1897 A, p. 344. (*Dinictis*.)
 Oligocene (White River); Colorado.

SMILODON Lund. Type *S. populator* Lund.

- Lund, P. W. 1842 A, p. 193.
 Adams, G. I. 1896 A, p. 433.
 1897 A, p. 147.
 Ameghino, F. 1889 A, p. 333.
 Blainville, H. M. D. 1864 A, iv, EE, p. 7, pl. xx.
 Cope, E. D. 1880 D, p. 854.
 1881 C, p. 166.
 1896 A, p. 240.
 Filhol, H. 1888 B, p. 129. (On *Machairodus bidentatus*.)
 Gervais P. 1878 A.
 Gervais and Ameghino 1880 A, p. 11.
 Leidy, J. 1868 A, p. 175. (*Trucifelis*, as subgenus, with *Felis fatalis* as type.)
 1869 A, p. 366. (*Trucifelis*.)

- Lydekker, R. 1885 B, p. 41. (Syn. of *Machærodus*.)
 Nicholson and Lydekker 1889 A, p. 1449.
 Owen, R. 1847 C, p. 67.
 Zittel, K. A. 1893 B, p. 675. (Syn. of *Machairodus*.)

Smilodon fatalis (Leidy).

- Leidy, J. 1868 A, p. 175. [*Felis* (*Trucifelis*).]
 Adams, G. I. 1896 A, p. 433.
 Cope, E. D. 1880 D, p. 857.
 1899 A, p. 240.
 Cope and Wortman 1884 A, p. 5.
 Leidy, J. 1869 A, p. 366, pl. xxvii, figs. 10, 11. (*Trucifelis*.)
 1873 B, p. 260. (*Trucifelis*.)
 Lydekker, R. 1884 A, p. 333. (*Machærodus*.)

Roger, O. 1896 A, p. 70. (*Machairodus*.)

Trouessart, E. L. 1897 A, p. 349.

Pleistocene; Texas.

***Smilodon floridanus* (Leidy).**

Leidy, J. 1889 A, p. 29. (*Drepanodon* or *Machairodus*.)

Adams, G. I. 1896 A, p. 433.

Cope, E. D. 1892 A.A. (*Machairodus*.)

Leidy, J. 1889 D, p. 14, pl. iii, fig. 1. (*Machairodus*.)

1892 A. (*Machairodus*.)

Roger, O. 1896 A, p. 70. (*Machairodus*.)

Trouessart, E. L. 1897 A, p. 349.

Zittel, K. A. 1893 B, p. 675. (*Machairodus*.)

Pleistocene; Florida.

DINOBASTIS Cope. Type *D. serus* Cope.

Cope, E. D. 1893 K, p. 896.

Adams, G. I. 1896 A, pp. 433, 435.

1897 A, p. 145. (Syn. of *Smilodon*.)

Cope, E. D. 1894 H, p. 454.

***Dinobastis serus* Cope.**

Cope, E. D. 1893 K, p. 896.

Cope, E. D. 1894 A, p. 68.

1894 H, p. 454, pl. xxi, figs. 1-13.

Roger, O. 1896 A, p. 70.

Trouessart, E. L. 1897 A, p. 349.

Pleistocene; Kansas, Oklahoma.

ARCHÆLURUS Cope. Type *A. debilis* Cope.

Cope, E. D. 1879 X, p. 798a.

Adams, G. I. 1896 A, p. 438.

Allen, H. 1888 A.

Cope, E. D. 1879 E, p. 372.

1880 D, p. 836, 841.

1881 C, p. 167.

1884 O, pp. 948, 952.

Flower and Lydekker 1891 A, p. 524.

Mivart, St. G. 1881 A, pp. 436, 439.

Nicholson and Lydekker 1889 A, p. 1446.

Schlosser, M. 1890 B, p. 40.

Winge, H. 1895 B, pp. 47, 55, 91.

Zittel, K. A. 1893 B, p. 672.

***Archælus debilis* Cope.**

Cope, E. D. 1879 X, p. 798a.

Cope, E. D. 1879 D, p. 72. (Part of *Machairodus brachyops*, "female skull.")

1879 E, p. 372.

1880 D, p. 842, figs. 3, 4, 7.

1881 J, p. 546, fig. 7.

1884 O, p. 953, pl. lxxix, figs. 8-16.

1889 C, p. 190.

Matthew, W. D. 1899 A, p. 63.

Mivart, St. G. 1881 A, p. 436, fig. 188.

Roger, O. 1896 A, p. 68.

Trouessart, E. L. 1897 A, p. 343. (Exclusive of *Pseudelurus intrepidus*.)

Miocene (John Day); Oregon.

NIMRAVUS Cope. Type *N. gomphodus* Cope.

Cope, E. D. 1879 F, pp. 169, 170.

Adams, G. I. 1896 A, p. 438.

1897 A, p. 146.

Cope, E. D. 1880 D, pp. 836, 843.

1881 C, p. 167.

1884 O, pp. 948, 953.

Flower and Lydekker 1891 A, p. 524.

Lydekker, R. 1887 A, p. 313.

Mivart, St. G. 1881 A, pp. 435, 439.

Nicholson and Lydekker 1889 A, p. 1446.

Winge, H. 1895 B, pp. 47, 55, 91.

Zittel, K. A. 1893 B, p. 671.

***Nimravus confertus* Cope.**

Cope, E. D. 1880 D, p. 844, fig. 10.

Adams, G. I. 1897 A, p. 149, fig. 5.

Cope, E. D. 1881 C, p. 172.

1884 O, p. 972, pl. lxxix, fig. 17.

Matthew, W. D. 1899 A, p. 63.

Roger, O. 1896 A, p. 68.

Trouessart, E. L. 1897 A, p. 344.

Miocene (John Day); Oregon.

***Nimravus gomphodus* Cope.**

Cope, E. D. 1880 D, p. 844, figs. 6, 7.

Adams, G. I. 1897 A, p. 149, fig. 4.

Cope, E. D. 1879 F, p. 170. (*N. brachyops*; not *Deinictis brachyops*.)

1881 C, p. 171.

1881 J, p. 546, fig. 8.

1884 O, p. 964, pl. lxxix, figs. 1-3; pl. lxxiii.

Matthew, W. D. 1899 A, p. 63.

Mivart, St. G. 1881 A, p. 434, fig. 186. (*N. brachyops*.)

Roger, O. 1896 A, p. 68.

Trouessart, E. L. 1897 A, p. 344.

Zittel, K. A. 1893 B, p. 673, fig. 563.

Miocene (John Day); Oregon.

FELINÆ.

Adams, G. I. 1896 A, p. 444.

Gill, T. 1872 B, p. 59.

Roger, O. 1896 A, p. 66 (*Proælorinae*.); p. 67 (*Machairodinae*, in part.)

Trouessart, E. L. 1897 A, p. 350.

Zittel, K. A. 1893 B, p. 676.

PSEUDÆLURUS Gervais. Type *Felis quadridentata* Blainv.

- Gervais, P.*, 1848-1852, Zool. et Paléont. franç., 1st edition, p. 127.
Adams, G. I. 1897 A, p. 145.
Cope, E. D. 1879 F, p. 170.
 1881 C, p. 167.
 1884 O, p. 948.
Depéret, C. 1892 A, p. 20.
Filhol, H. 1872 A, p. 3.
 1876 A, p. 158.
 1891 A, p. 73.
Gervais, P. 1859 A, p. 232.
Leidy, J. 1869 A, p. 52.
 1871 C, p. 343.
Lydekker, R. 1884 A, p. 314.
 1885 B, p. 64.
Mivart, St. G. 1881 A, p. 434.
Schlosser, M. 1890 B, p. 39.
Trouessart, E. L. 1897 A, p. 350.

- Winge, H.* 1895 B, pp. 47, 54, 78, 91.
Zittel, K. A. 1893 B, p. 666.

Pseudælorus intrepidus Leidy.

- Leidy, J.* 1858 E, p. 22. [*Felis* (*Pseudælorus*).]
Cope, E. D. 1879 X, p. 798a.
Hayden, F. V. 1858 B, p. 158. [*Felis* (*Pseudælorus*).]
King, C. 1878 A, p. 411. (*Drepanodon*).
Leidy, J. 1869 A, pp. 52, 367, pl. 1, fig. 8.
 1871 C, p. 343.
Matthew, W. D. 1899 A, p. 68.
Roger, O. 1896 A, p. 67.
Schlosser, M. 1890 B, p. 40.
Scott and Osborn 1890 B, p. 71.
Trouessart, E. L. 1897 A, p. 343. (Syn. of *Archælorus debilis*).
 Miocene (Loup Fork); Nebraska, Colorado.

FELIS¹ Linn. Type *F. catus* Linn.

- Linnaeus, C.*, 1758, Syst. Nat., ed. 10, i, p. 41.
Baird, S. F. 1857 A, p. 81.
Blainville, H. M. D. 1864 A, II, O, p. 1, pl. xix.
Cope, E. D. 1879 F, pp. 170, 171.
 1899 A, p. 247. (*Felis*, *Uncia*.)
Flower, W. H. 1869 B, p. 15.
 1883 D, p. 434.
 1885 A.
Flower and Lydekker 1891 A, p. 502.
Leche, W. 1895 A, p. 56.
Mivart, St. G. 1881 A.
 1882 A.
Nicholson and Lydekker 1889 A, p. 1447.
Owen, R. 1866 B.
 1868 A.
Pictet, F. J. 1853 A, p. 235.
Trouessart, E. L. 1897 A, p. 351.
Williston, S. W. 1898 K.
Winge, H. 1895 B, pp. 54, 91, 100, 101.
Zittel, K. A. 1893 B, p. 676.

Felis atrox Leidy.

- Leidy, J.* 1853 F, p. 34.
Cope, E. D. 1880 D, p. 858. (*Uncia*.)
 1899 A, p. 249. (*Uncia*.)
Cope and Wortman 1884 A, p. 5.
Leidy, J. 1860 B, p. 103.
 1869 A, p. 365.
Roger, O. 1896 A, p. 72.
Trouessart, E. L. 1897 A, p. 351.
Wailles, B. L. C. 1854 A, p. 236.

Felis angustus Leidy.

- Leidy, J.* 1872 E, p. 39.
Cope, E. D. 1880 D, p. 858. (*Uncia*.)
Leidy, J. 1873 B, pp. 227, 315, pl. vii, figs. 18, 19; pl. xx, fig. 24.
Matthew, W. D. 1899 A, p. 68. (*Felis*?)
Roger, O. 1896 A, p. 73. (*F. angusta*.)
Trouessart, E. L. 1897 A, p. 351.
Zittel, K. A. 1893 B, p. 677. (*F. angustus*.)
 Miocene (Loup Fork); Nebraska.

Felis calcaratus Cope.

- Cope, E. D.* 1899 A, p. 250, pl. xxi, figs. 2, 2a.
 1895 F, p. 448. (*F. rufus*, not of authora.)
 Pleistocene; Pennsylvania.

Felis concolor Linn.

- Linnaeus, C.*, 1771, Mantissa, p. 522.
Baird, S. F. 1857 A, p. 83, pl. lxxi.
Giebel, C. G. 1872 A, p. 431.
Leidy, J. 1888 A, p. 9.
Trouessart, E. L. 1897 A, p. 352.
True, F. W. 1891 A, p. 591.
 Recent; Mexico to Canada. Pleistocene; Illinois.

Felis eyra Desm.

- Baird, S. F.* 1857 A, p. 83, pl. lxii, fig. 1.
Cope, E. D. 1895 F, p. 449.
 1899 A, p. 250.
Giebel, C. G. 1872 A, p. 431.
 Recent; Guiana to Mexico. Pleistocene; Pennsylvania.

Felis hillianus Cope.

- Cope, E. D.* 1892 Y, p. 1029.
 1892 I, p. 327.
 1893 A, p. 55, pl. xiv, figs. 1-11.
Matthew, W. D. 1899 A, p. 75.
Roger, O. 1896 A, p. 72.
Trouessart, E. L. 1897 A, p. 351.
 Pliocene (Blanco); Texas.

Felis imperialis Leidy.

- Leidy, J.* 1873 F, p. 259.
Adams, G. I. 1896 A, p. 434.
Leidy, J. 1873 B, pp. 228, 315, pl. xxxi, fig. 3.
Roger, O. 1896 A, p. 73.
Trouessart, E. L. 1897 A, p. 351.
Whitney, J. D. 1879 A, p. 246.
Yates, L. G. 1874 B, p. 18.
 Pleistocene; California.

¹ Besides the species below recorded, Dr. Leidy (1889 H, p. 5) has reported *F. canadensis* from a cave in Pennsylvania.

Felis inexpectatus (Cope).

- Cope, E. D. 1895 F, p. 449. (Crocota.)
 1896 F, p. 392. (Uncia mercerii, in part.)
 1899 A, p. 247, pl. xxi, figs. 1-1f. (Uncia.)
 Lydekker, R., 1896, Zool. Record for 1896, Mamm.,
 p. 28. (Nimravus?).
 Roger, O. 1896 A, p. 66 (Hyaena crocuta inexpectata).
 Trouessart, E. L. 1897 A, p. 351. (Syn. of Felis mercerii.)
 Pleistocene; Pennsylvania.
Felis? maximus Scott and Osb.
 Scott and Osborn 1890 B, p. 70, figs. 4, 5.

- Adams, G. I. 1896 A, p. 434. (Genus uncertain.)
 Cragin, F. W. 1892 B, p. 17.
 Matthew, W. D. 1899 A, p. 68. (Felis?).
 Roger, O. 1896 A, p. 72.
 Trouessart, E. L. 1897 A, p. 351.
 Williston, S. W. 1898 K, p. 349.
 Miocene (Loup Fork); Kansas.

Felis ruffus Gldenst.

- Allen, J. A. 1876 C, p. 333. (Lynx rufus.)
 Baird, S. F. 1857 A, p. 90. (Lynx rufus.)
 Trouessart, E. L. 1897 A, p. 368. (F. rufa.)
 Recent; United States to Mexico. Pleistocene?; caves of Pennsylvania, *ſide* Allen.

Suborder PINNIPEDIA.

- Allen, J. A. 1890 A.
 Cope, E. D. 1888 CC, p. 310.
 1889 R, p. 876.
 1896 B, pp. 118, 120.
 Flower, W. H. 1883 D, p. 442.
 1885 A.
 Flower and Lydekker 1891 A, p. 592.
 Gadow, H. 1898 A, p. 50.
 Gill, T. 1866 A.
 1872 A.
 1872 B, pp. 56, 68.
 Gray, J. E. 1866 A.
 Gruber, W. 1859 A.
 Hæckel, E. 1895 A, p. 588.
 Huxley, T. H. 1872 A, p. 359.
 Kkenthal, W. 1890 C.
 Leboucq, H. 1888 A, p. 359.
 Lydekker, R. 1896 B.
 Mivart, St. G. 1885 A.

- Murie, J. 1874 A.
 Nicholson and Lydekker 1889 A, p. 1422.
 Osborn, H. F. 1893 D.
 Paulli, S. 1900 B, p. 505.
 Reh, L. 1894 A.
 Roger, O. 1896 A, p. 73.
 Schlosser, M. 1889 A.
 1890 C, p. 266.
 1890 D.
 Smith, J. 1895 A, p. 342.
 Steinmann and Dderlein 1890 A, p. 728.
 Thompson, D'A. W. 1890 A.
 Tomes, C. S. 1898 A, p. 475.
 Tornier, G. 1890 A, p. 449.
 Trouessart, E. L. 1897 A, p. 369.
 Van Beneden, P. J. 1877 A.
 Weber, M. 1886 A, p. 227.
 Wortman, J. L. 1894 A, pp. 157, 162.
 Zittel, K. A. 1893 B, p. 680.

OTARIIDÆ.

- Brookes, 1828, Cat. Anat. Zool. Mus., p. 36. (Otaridæ, *ſide* Allen.)
 Allen, J. A. 1890 A, p. 187.
 Flower and Lydekker 1898 A, p. 593.
 Gill, T. 1866 A, p. 7.

- Gill, T. 1872 B, pp. 68, 69.
 Trouessart, E. L. 1897 A, p. 369.
 Winge, H. 1895 B, pp. 47, 70.
 Zittel, K. A. 1893 B, p. 683. (Otaridæ.)

EUMETOPIAS Gill. Type *Arctocephalus monteriensis* Gray = *Otaria stelleri* Lesson.

- Gill, T. 1866 A, pp. 7, 11.
 Allen, J. A. 1890 A, p. 231.
 Flower and Lydekker 1891 A, p. 593. (Otaria, in part.)
 Trouessart, E. L. 1897 A, p. 370.
Eumetopias stelleri (Lesson).
 Allen, J. A. 1890 A, p. 232, fig. 37. (Synonymy and literature.)

- Bowers, S. 1889 A.
 Gray, J. E. 1866 A, p. 60. (Otaria.)
 1872 A, figs. 4, 5.
 Trouessart, E. L. 1897 A, p. 370.
 Recent; Pacific coast from California to Japan. Pleistocene; California, *ſide* Bowers.

ODOBENIDÆ.

- This name is usually spelled *Odobenidæ*. Unless otherwise indicated, the following authors use the family name *Trichechidæ*.
 Allen, J. A. 1890 A, pp. 3, 5.
 Flower, W. H. 1883 D, p. 443.
 Flower and Lydekker 1891 A, p. 596.
 Gadow, H. 1898 A, p. 51.

- Gill, T. 1866 A, pp. 7, 11. (Rosmaridæ.)
 1872 B, pp. 27, 69, 70. (Rosmaridæ.)
 Gray, J. E., 1821, Lond. Med. Repos., p. 303.
 1825, Ann. Philos., p. 340.
 1866 A, p. 33. (Trichechina.)
 Hæckel, E. 1895 A, p. 590. (Trichechida.)
 Huxley, T. H. 1872 A, p. 360.

Mivart, St. G. 1885 A. (*Trichechina*.)
 Nicholson and Lydekker 1889 A, pp. 1422, 1424.
 Reh, L. 1894 A, p. 12.
 Roger, O. 1896 A, p. 75.
 Turner, H. N. 1848 A, pp. 85, 88. (*Trichecina*,
 subfamily.)

Van Beneden, P. J. 1877 A, p. 39.
 Winge, H. 1896 B, pp. 47, 73. (*Trichechini*.)
 Wortman, J. L. 1886 A, p. 451.
 Zittel, K. A. 1893 B, p. 685.

ODOBENUS BRISSON. Type *Phoca rosamarus* Linn.

Brisson, A. D. 1762, *Regnum Anim.*, ed. ii, pp. 12, 30-31.

Unless otherwise indicated, the following authors refer to this genus under the name *Trichechus*.

Allen, J. A. 1880 A, p. 14. (*Odobenus*.)
 Blainville, H. M. D. 1864 A, ii, J. (*Trichechus*.)
 Boyd, C. H. 1881 A.
 Flower and Lydekker 1891 A, p. 597.
 Gill, T. 1866 A, p. 13. (*Rosmarus*.)
 Grattolet, P. 1858 A. (*Odobenotherium*, type *O. lartetianus*.)
 Gray, J. E. 1866 A, p. 35.
 Kükenthal, W. 1894 A, p. 77.
 Mivart, St. G. 1885 A, p. 493.
 Murie, J. 1871 A.
 Nicholson and Lydekker, 1889 A, p. 1424.
 Owen, R. 1845 B, p. 510.
 Palmer, T. S. 1899 A, p. 494.
 Pictet, F. J. 1853 A, p. 233.
 Rhoads, S. N. 1896 A, p. 200. (*Rosmarus*.)
 Slade, D. D. 1888 A, p. 243.
 Smith, J. 1895 A, p. 339, fig. 7.
 Stannius, H. 1842 B.
 Tomes, C. S. 1898 A, p. 478.
 Trouessart, E. L. 1897 A, p. 375.
 Turner, H. N. 1848 A.
 Van Beneden, P. J. 1877 A, p. 39.
 Wiegmann, F. A. 1838 A, p. 113. (*Odobenus*.)
 Zittel, K. A. 1893 B, p. 685.

Odobenus rosamarus (Linn.).

Linnaeus, C., 1758, *Syst. Nat.*, ed. 10, 1 p. 38. (*Phoca*.)

Unless otherwise indicated, the following authors refer this species to *Trichechus*.

Allen, J. A. 1880 A, p. 23, figs. 15, 16, 18, 20, 23, 25, 26, 28, 30, 32, 34. (Synonymy and literature.)
 Blainville, H. M. D. 1864 A, ii, J, pls. i, iv, vii, ix. (*Trichechus*.)
 Gervais, P. 1859 A, p. 275. (*Trichechus*.)
 Giebel, C. G. 1847 A, p. 222.
 Goethe, J. W. 1831 A, p. 8, pl. iv. ("Walross.")
 Gray, J. E. 1866 A, p. 37, fig. 12.
 Grattolet, P., 1858 A, pl. v. (*Odobenotherium lartetianus*.)
 Jaeger, G. 1844 A. (*Wallross*.)
 Kersten, H. 1821 A.
 Kükenthal, W. 1894 A, p. 77.
 Malmgren, A. J. 1864 A, p. 505, pl. vii. (*Odobenus*.)

1865 A. (*Odobenus*.)

Murie, J. 1871 A.

Owen, R. 1853 A.

1866 B, p. 496, fig. 339.

1868 A, p. 338.

Peters, W. 1864 A, plate. (*Odobenus rosamarus*.)

Reh, L. 1894 A, p. 12.

Rhoads, S. N. 1896 A, p. 200. (*Rosmarus*.)

Roger, O. 1896 A, p. 75.

Stannius, H. 1842 B.

Trouessart, E. L. 1897 A, p. 375.

Van Beneden, P. J. 1877 A, p. 39, pl. viii, figs. 7-2.

Wiegmann, F. A. 1838 A, p. 113. (*Odobenus*.)

Recent; shores of Northern Atlantic and Arctic oceans from Labrador to Siberia. Pleistocene; Labrador.

Odobenus virginianus (De Kay).

De Kay, J. E. 1842 C, p. 56, pl. xix, fig. 1. (*Trichechus*.)

Agassiz, L. 1851 A, p. 252. ("Walrus.")

Allen, J. A. 1880 A, p. 57. (*Odobenus*.)

Amer. Naturalist 1871 B, p. 316.

Barton, B. S. 1805 A, p. 98. (*Trichechus rosamarus*.)

Cope, E. D. 1869 N, p. 740. (*Trichechus rosamarus*.)

1874 T. ("Walrus.")

1878 BB. (*Trichechus rosamarus*.)

Harlan, R. 1834 B, p. 72. (*Trichechus rosamarus*.)

1835 B, p. 277. (*Trichechus rosamarus*.)

Leidy, J. 1857 G, p. 83, pl. iv; pl. v, fig. 1. (*Trichechus*.)

1869 A, p. 416. (*Trichechus rosamarus*.)

1876 A, p. 80. ("Walrus.")

1877 A, p. 214, pl. xxx, fig. 6. (*Rosmarus obesus*.)

Lyell, C. 1843 C, p. 32. (*Trichechus rosamarus*.)

Mitchell, Smith, and Cooper 1828 A. ("Walrus.")

Newberry, J. S. 1870 C, p. 75. (*Trichechus rosamarus*.)

1874 D, p. 71. (*Trichechus rosamarus*.)

Packard, A. S. 1867 A, pp. 243, 246. (*Rosmarus obesus*.)

Rhoads, S. N. 1896 A, p. 196.

Pleistocene; Maine, Nova Scotia, Massachusetts, New Jersey, Virginia, South Carolina.

Some of the remains described by the above authors may belong to *O. rosamarus*; indeed, it is not certain that any are distinct.

PHOCIDÆ.

Allen, J. A. 1880 A, p. 412.

Blainville, H. M. D. 1864 A, ii, I, p. 5; J, p. 1, pls. i-ix.

Cuvier, G. 1834 A, viii, pl. i, pp. 381-458, with plates,

Flower, W. H. 1883 D, p. 443.

Flower and Lydekker 1891 A, p. 600.

Gill, T. 1866 A, p. 5.

1872 B, pp. 68, 69.

Gray, J. E. 1866 A, p. 1.
 Huxley, T. H. 1872 A, p. 360.
 Kùenthal, W. 1894 A, p. 97.
 Leche, W. 1893 B.
 Mivart, St. G. 1885 A.
 Nicholson and Lydekker 1889 A, p. 1422.
 Owen, R. 1845 B, p. 505.
 1868 A, p. 336.

Reh, L. 1894 A, p. 35.
 Roger, O. 1896 A, p. 73.
 Scott, W. B. 1892 A, p. 424.
 Turner, H. N. 1848 A.
 Van Beneden, P. J. 1877 A.
 Winge, H. 1896 B, pp. 47, 72, 74, 76, 91.
 Zittel, K. A. 1893 B, p. 683.

CYSTOPHORA Nilsson. Type *C. borealis* Nilsson = *Phoca cristata* Erxl.

Nilsson, S., 1820, Skand. Fauna, i, p. 382.
 Allen, J. A. 1880 A, p. 723.
 Flower and Lydekker 1891 A, p. 605.
 Owen, R. 1868 A, p. 337.

Cystophora cristata (Erxl.).

Erzleben, C. P., 1777, Syst. Regn. Anim., p. 590.
 (Phoca.)

Allen, J. A. 1880 A, pp. 470, 724, figs. 52-56. (Synonymy and literature.)
 Leidy, J. 1869 A, p. 416.
 Lyell, C. 1843 C, p. 32. (C. proboscidea.)
 Owen, R. 1866 B, p. 496.
 Trouessart, E. L. 1897 A, p. 378.
 Recent; along shores of Northern Atlantic; said by Lyell to have been found in Tertiary strata of Martha's Vineyard.

LOBODON Gray. Type *Phoca curcinophaga* Homb., Jacq.

Gray, J. E., 1844, Zool. Erebus and Terror, i, p. 5.
 Flower and Lydekker 1891 A, p. 605.
 Gray, J. E. 1866 A, p. 8, fig. 2.
 Trouessart, E. L. 1897 A, p. 381. (Subgenus of Ogmorhinus.)

Lobodon vetus Leidy.

Leidy, J. 1853 C, p. 377, figure. (Stenorhynchus.)

Allen, J. A. 1880 A, p. 475.
 Cope, E. D. 1869 N, p. 740.
 Leidy, J. 1865 A, p. 2. (Stenorhynchus.)
 1869 A, p. 415.
 Trouessart, E. L. 1897 A, p. 381. [Ogmorhinus (Lobodon).]
 Miocene?; New Jersey.

PHOCA Linn. Type *P. vitulina* Linn.

Linnaeus, C., 1758, Syst. Nat., ed. 10. i, p. 37.
 Allen, J. A. 1880 A, p. 462.
 Flower, W. H. 1883 D, p. 443.
 1885 A.
 Flower and Lydekker 1891 A, p. 601.
 Gray, J. E. 1866 A, p. 31.
 Huxley, T. H. 1872 A, p. 361.
 Mivart, St. G. 1885 A, p. 496.
 Owen, R. 1866 B, p. 494.
 Pictet, F. J. 1853 A, p. 232.
 Toulou, F. 1897 A.
 Van Beneden, P. J. 1877 A.
 Winge, H. 1896 B, pp. 47, 91.
 Zittel, K. A. 1893 B, p. 684.

Phoca groenlandica.

Allen, J. A. 1880 A, pp. 470, 630. (Synonymy and literature.)
 Dawson, J. W. 1877 B.

Leidy, J. 1856 G, p. 90, pl. iii.
 Leidy, J. 1869 A, p. 415.
 Logan, W. E. 1863 A, p. 920.
 Trouessart, E. L. 1897 A, p. 387. [Phoca (Pagophilus).]
 Recent in Northern Atlantic and in Arctic Ocean around the poles. Pleistocene; Canada, Maine.

Phoca wymani Leidy.

Leidy, J. 1854 A, p. 8.
 Allen, J. A. 1880 A, p. 471.
 Cope, E. D. 1867 B, p. 132, in part.
 1867 C, pp. 151, 152, in part.
 Leidy, J. 1869 A, p. 415, in part.
 Roger, O. 1896 A, p. 74.
 Wyman, J. 1850 B, p. 229, figs. 1-3 (?).
 Miocene; Virginia.
 See citations under *Delphinodon leidy*.

Order PRIMATES.

Blainville, H. M. D. 1864 A, i, A, B, F, pls. i-xi.
 Cope, E. D. 1873 E, pp. 546, 644.
 1880 B, p. 456. (Quadrumania.)
 Flower, W. H. 1882 B.
 1883 A.
 1883 D, p. 444.
 1885 A.
 Flower and Lydekker 1891 A, p. 680.
 Fry, E. 1846 A.

Gaudry, A. 1878 B, p. 223. ("Les quadrumanes.")
 Gill, T. 1872 A, p. 296.
 1872 B, pp. 1, 47, 50.
 Gill and Coues 1877 A.
 Hay, O. P. 1899 F, p. 682.
 Hubrecht, A. A. W. 1896 A.
 Huxley, T. H. 1872 A, p. 388.
 Lydekker, R. 1885 B.
 1896 B.

- Marsh, O. C. 1872 N. (*Quadrumana*)
 1872 S. (*Quadrumana*)
 1877 E.
 Mivart, St. G. 1864 A.
 1865 A.
 1867 A.
 1868 B.
 1873 A.
 1875 A.
 Nicholson and Lydekker 1889 A, p. 1463.
 Osborn, H. F. 1892 I.
 1893 G, p. 493.
 1898 A, p. 146.
 Osborn and Earle 1895 A, p. 15.
 Owen, R. 1835 A.
 1843 A, p. 55. (*Quadrumana*)
 1845 B, p. 433. (*Quadrumana*)
 1859 C.
 1866 B, p. 511. (*Quadrumana*)

- Owen, R. 1868 A, p. 313. (*Quadrumana*)
 Parsons, F. G. 1899 A.
 1900 A.
 Paulli, S. 1900 B, p. 542.
 Roger, O. 1896 A, p. 249.
 Schlosser, M. 1887 B, p. 7. (*Quadrumana*)
 1889 A.
 1890 D.
 Scott, W. B. 1892 A, p. 417.
 Slade, D. D. 1891 A.
 1891 B.
 Steinmann and Döderlein 1890 A, p. 741.
 Topinard, P. 1892 A.
 Tornier, G. 1888 A.
 Trouessart, E. L. 1897 A, p. 1.
 Weyhe, —. 1875 A, p. 114.
 Winge, H. 1895 A.
 Zittel, K. A. 1893 B, pp. 685, 747.

Suborder PROSIMIÆ.

- Branco, W. 1897 A, p. 30. ("Halbaffen.")
 Cope, E. D. 1876 E, p. 86. (>Mesodonta.)
 1877 K, pp. 85, 134. (>Mesodonta.)
 1880 B, p. 456.
 1882 A, p. 446. (Mesodonta.)
 1882 E, p. 151.
 1883 I, pp. 77, 79. (Prosimiæ, Mesodonta.)
 1884 O, pp. 239, 739 (Prosimiæ; pp. 185, 211, 738 (Mesodonta).
 1884 R, p. 60. (Lemuroidæ.)
 1885 K. (Lemuroidæ.)
 1888 EE, p. 164. (>Mesodonta.)
 Flower, W. H. 1876 B, xiv, p. 11. (Lemuroidæ.)
 1882 B. (Lemuroidæ.)
 Flower and Lydekker 1891 A, p. 682. (Lemuroidæ.)
 Gill, T. 1872 A, p. 296.
 Hubrecht, A. A. W. 1896 A, p. 150. (Lemures.)
 Leche, W. 1897 C.

- Lemoine, V. 1880 A, p. 587.
 Lydekker, R. 1896 B. (Lemuroidæ.)
 Mivart, St. G. 1868 B.
 Nicholson and Lydekker 1889 A, p. 1465. (Lemuroidæ.)
 Osborn, H. F. 1888 F, p. 1068. (Lemuroidæ.)
 1890 C, p. 55. (Mesodonta.)
 1900 C, p. 567. (Mesodonta.)
 Osborn and Wortman 1892 A, p. 102. (Lemuroidæ, Mesodonta.)
 Roger, O. 1896 A, p. 249.
 Rüttimeyer, L. 1888 A, p. 29. (>Mesodonta.)
 Schlosser, M. 1887 B, p. 19. (>Pseudolemuridæ.)
 Schmidt, O. 1886 A, p. 294.
 Steinmann and Döderlein 1890 A, p. 742.
 Trouessart, E. L. 1897 A, p. 54.
 Winge, H. 1895 A, p. 12. (Lemuroidæ.)
 Zittel, K. A. 1893 B, pp. 686, 711, 725.

MIXODECTIDÆ.

- Cope, E. D. 1883 I, p. 80. (Anaptomorphidæ, Myxodectidæ.)
 1884 K, pp. 318, 319. (Anaptomorphidæ, Myxodectidæ.)
 1884 O, p. 240. (Anaptomorphidæ, Myxodectidæ.)
 1884 R, p. 60. (Anaptomorphidæ, Myxodectidæ.)
 1885 K, pp. 459, 464. (Anaptomorphidæ, Myxodectidæ.)
 Haeckel, E. 1895 A, pp. 600, 604. (Necrolemuræ, in part.)

- Matthew, W. D. 1899 A, p. 29.
 Osborn and Earle 1895 A, p. 16.
 Osborn and Wortman 1892 A, pp. 101, 102.
 Roger, O. 1896 A, p. 253. (Anaptomorphidæ.)
 Trouessart, E. L. 1897 A, p. 66. (Tarsiidæ, in part.)
 Winge, H. 1895 A, p. 12. (Tarsiidæ, in part; Tarsiidæ.)
 Zittel, K. A. 1893 B, p. 696.

MIXODECTES Cope. Type *M. pungens* Cope.

- Cope, E. D. 1883 M, p. 558.
 Branco, W. 1897 A, p. 31.
 Cope, E. D. 1884 K, p. 319.
 1884 O, pp. xxxv, p. 240.
 1885 K, p. 465.
 Matthew, W. D. 1897 B, pp. 231, 265.
 1897 C, p. 265.
 1898 B, p. 369.

- Nicholson and Lydekker 1889 A, p. 1467.
 Osborn, H. F. 1896 A, p. 145.
 Schlosser, M. 1887 B, pp. 40, 49.
 Zittel, K. A. 1893 B, p. 697.

Mixodectes crassiusculus Cope.

- Cope, E. D. 1883 M, p. 560.
 1884 O, p. 242, pl. xxivf, fig. 2.

- Cope, E. D. 1888 CC, p. 304.
 Matthew, W. D. 1899 A, p. 29.
 Roger, O. 1896 A, p. 254.
 Trouessart, E. L. 1897 A, p. 67.
 Eocene (Torrejon); New Mexico.

Mixodectes pungens Cope.

- Cope, E. D. 1883 M, p. 559.

- Cope, E. D. 1884 O, p. 241, pl. xxiv, fig. 1.
 1885 K, p. 465, fig. 9.
 1888 CC, p. 304.
 Matthew, W. D. 1897 C, p. 266, fig. 1.
 1899 A, p. 29.
 Roger, O. 1896 A, p. 254.
 Trouessart, E. L. 1897 A, p. 67.
 Eocene (Torrejon); New Mexico.

ANAPTOMORPHUS Cope. Type *A. amulus* Cope.

- Cope, E. D. 1872 U, p. 554.
 Branco, W. 1897 A, p. 31.
 Cope, E. D. 1873 E, p. 549.
 1877 K, p. 135.
 1882 E, p. 152.
 1882 N, p. 73.
 1884 K, p. 319.
 1884 O, pp. xxxv, 214, 240, 245.
 1884 R, p. 60.
 1885 K, p. 465.
 1888 G, p. 8.
 Filhol, H. 1874 A, p. 1.
 1883 B, p. 3 (Anaptomorphus); p. 15 (Washakius).
 1885 A.
 Flower, W. H. 1882 B, p. 445.
 Flower and Lydekker 1891 A, p. 697.
 Hubrecht, A. A. W. 1896 A, p. 162.
 Leidy, J. 1873 B, p. 123. (Washakius, type *W. insignis*.)
 Nicholson and Lydekker 1889 A, p. 1467.
 Osborn, H. F. 1888 F, p. 1077.
 1892 I.
 1896 C, p. 7, pl. AA, figs. 7, 9.
 Osborn and Wortman 1892 A, p. 102.
 Schlosser, M. 1887 B, p. 34 (Washakius = ?Opisthotomus); pp. 39, 48 (Anaptomorphus).
 Science 1885 A, p. 489.
 Scott, W. B. 1892 A, p. 418.
 Steinmann and Döderlein 1890 A, p. 744.
 Trouessart, E. L. 1897 A, p. 67.
 Winge, H. 1896 A, p. 15.
 Zittel, K. A. 1893 B, p. 697.

Anaptomorphus æmulus Cope.

- Cope, E. D. 1872 U, p. 554.

- Cope, E. D. 1873 E, p. 549.
 1884 O, p. 248, pl. xxv, fig. 10.
 1885 K, p. 465, fig. 11.
 Marsh, O. C. 1875 B, p. 239. (Syn. of *Antiacodon nanus*.)
 Matthew, W. D. 1899 A, p. 38.
 Nicholson and Lydekker 1889 A, p. 1468, fig. 1351.
 Osborn and Wortman 1892 A, p. 103. (*Antiacodon*.)
 Roger, O. 1896 A, p. 253. (*A. æmulus*, with "*Washakius fallax*" as a synonym.)
 Trouessart, E. L. 1897 A, p. 67.
 Eocene (Bridger); Wyoming.

Anaptomorphus homunculus Cope.

- Cope, E. D. 1882 E, p. 152.
 1882 N, p. 73.
 1884 K, p. 466, fig. 12.
 1884 O, p. 249, pl. xxiv, fig. 1.
 Matthew, W. D. 1899 A, p. 30. (*Omomys*.)
 Nicholson and Lydekker 1889 A, p. 1467, fig. 1350.
 Osborn, H. F. 1895 C, p. 11, fig. D.
 Osborn and Wortman 1892 A, p. 102, fig. 6.
 Roger, O. 1896 A, p. 254.
 Trouessart, E. L. 1897 A, p. 67.
 Zittel, K. A. 1893 B, p. 697, fig. 576.
 Eocene (Wasatch); Wyoming.

Anaptomorphus insignis (Leidy).

- Leidy, J. 1873 B, pp. 123, 386, pl. xxvii, figs. 3, 4. (Washakius.)
 Matthew, W. D. 1899 A, p. 38. (Syn. of *A. æmulus*.)
 Trouessart, E. L. 1897 A, p. 67. (*Anaptomorphus*.)
 Eocene (Bridger); Wyoming.

ANTIACODON Marsh. Type *A. venustus* Marsh.

- Marsh, O. C. 1872 I, p. 210.
 Cope, E. D. 1873 C, pp. 13, 17.
 1875 L, p. 21.
 Filhol, H. 1883 B, p. 17.
 Marsh, O. C. 1875 B, p. 239.
 1877 E.
 Matthew, W. D. 1899 A, p. 38. (= ?*Omomys*.)
 Schlosser, M. 1887 B, p. 34.
 Zittel, K. A. 1893 B, p. 697. (Syn. of *Anaptomorphus*.)

Antiacodon nanus Marsh.

- Marsh, O. C. 1872 I, p. 213. (*Hemiacodon*.)
 1875 B, p. 239. (*Antiacodon*: *Anaptomorphus æmulus*, a synonym.)

- Matthew, W. D. 1899 A, p. 38. (*Hemiacodon nanus*.)
 Trouessart, E. L. 1897 A, p. 74. (*Hemiacodon*.)
 Eocene (Bridger); Wyoming.
 Marsh's *Antiacodon nanus* seems to be his earlier *Hemiacodon nanus*.

Antiacodon venustus Marsh.

- Marsh, O. C. 1872 I, p. 210.
 Cope, E. D. 1873 E, p. 607. (Syn. of *A. pygmaeus*.)
 1873 U, p. 1. (Syn. of *A. pygmaeus*.)
 Matthew, W. D. 1899 A, p. 38.
 Roger, O. 1896 A, p. 253. (*Sarclemur*.)
 Trouessart, E. L. 1897 A, p. 67 (Syn. of *A. æmulus*); p. 73 (*Sarclemur*.)
 Eocene (Bridger); Wyoming.

OMOMYS Leidy. Type *O. carteri* Leidy.

- Leidy, J.* 1869 B, p. 63.
Cope, E. D. 1875 C, p. 13.
 1877 K, p. 134.
 1884 O, pp. 215, 240.
Leidy, J. 1869 A, p. 408.
 1871 C, p. 364.
Nicholson and Lydekker 1889 A, p. 1467.
Osborn and Wortman 1892 A, p. 102.
Schlosser, M. 1887 B, p. 35.
Zittel, K. A. 1893 B, p. 697.

Omomys carteri Leidy.

- Leidy, J.* 1869 B, p. 63.
 1869 A, p. 408, pl. xxix, figs. 13, 14.
 1871 C, p. 365.
 1872 B, p. 356.
 1873 B, pp. 120, 336.
Matthew, W. D. 1899 A, p. 38.
Roger, O. 1896 A, p. 254.
Trouessart, E. L. 1897 A, p. 67.
 Eocene (Bridger); Wyoming.

CYNODONTOMYS Cope. Type *C. latidens* Cope.

- Cope, E. D.* 1882 E, p. 151.
 1883 M, p. 559.
 1884 K, p. 319.
 1884 O, pp. xxxv, pp. 239, 240, 243.
 1885 K, p. 465.
Nicholson and Lydekker 1889 A, p. 1467.
Schlosser, M. 1887 B, pp. 40, 48.
Zittel, K. A. 1893 B, p. 698.

Cynodontomys latidens Cope.

- Cope, E. D.* 1882 E, p. 151.
 1884 O, p. 244, pl. xxiv, fig. 2.
 1885 K, p. 465, fig. 10.
Matthew, W. D. 1899 A, p. 30.
Roger, O. 1896 A, p. 254.
Trouessart, E. L. 1897 A, p. 68.
 Eocene (Wasatch); Wyoming.

PROSINOPA Trouessart. Type *Sinopa eximia* Leidy.

- Trouessart, E. L.* 1897 A, p. 68.
Scott, W. B. 1892 B, p. 310. (Sinopa.)

Prosinoxa eximia (Leidy).

- Leidy, J.* 1873 B, pp. 118, 316, pl. xvi, fig. 45. (Sinopa.)

- Matthew, W. D.* 1899 A, p. 38.
Roger, O. 1896 A, pp. 35, 254. (Sinopa?)
Scott, W. B. 1892 B, p. 310. (Sinopa?)
Trouessart, E. L. 1897 A, p. 68.
 Eocene (Bridger); Wyoming.

LIMNOTHERIIDÆ.

- Marsh, O. C.* 1875 B, p. 239.
Bronn, H. G. 1838 A, p. 1224, pl. xli, fig. 6. (Adapis.)
Cope, E. D. 1884 K, p. 318.
 1884 O, pp. 213, 240.
 1885 K, p. 459.
 1888 EE, p. 163.
Filhol, H. 1883 B, p. 19. (Adapis.)
Flower, W. H. 1882 B, p. 444. (Adapis.)
Gaudry, A. 1878 B, p. 226. (Adapis.)
Haeckel, E. 1895 A, pp. 600, 604. (Necrolestes, in part.)
Leche, W. 1897 C, p. 147. (Adapis.)

- Marsh, O. C.* 1875 B, p. 240. (Lemuravidae.)
Marsh, O. C. 1876 G, p. 60. (Limnotheriidae, Lemuravidae.)
 1877 E.
 1895 D, p. 498. (Limnotheriidae, Lemuravidae.)
Nicholson and Lydekker 1889 A, p. 1466. (Adapis, Hyopsodontidae.)
Schlosser, M. 1887 B, p. 21 (Adapis); pp. 21, 54 (Hyopsodontidae.)
Steinmann and Döderlein 1890 A, p. 743. (Adapis, Hyopsodontidae.)
Zittel, K. A. 1893 B, p. 689. (Pachylemuridae.)

TOMTHERIUM Cope. Type *T. rostratum* Cope.

- Cope, E. D.* 1872 E, p. 470.
 1873 E, pp. 546, 645.
 1876 E.
 1877 K, p. 134.
 1884 O, pp. 216, 218.
 1885 K, pp. 460, 461.
Flower and Lydekker 1891 A, p. 698.
Lockwood, S. 1886 A, p. 324.
Matthew, W. D. 1899 A, p. 37. (Syn. of Notharctus.)
Nicholson and Lydekker 1889 A, p. 1466.
Osborn, Scott, and Speir 1878 A, p. 13.
Schlosser, M. 1887 B, p. 22.
Zittel, K. A. 1893 B, p. 693.

Tomtherium affine (Marsh).

- Marsh, O. C.* 1872 I, p. 207. (Limnotherium.)
Cope, E. D. 1884 O, p. 223. (Limnotherium.)
Marsh, O. C. 1875 B, p. 239. (Limnotherium; T. rostratum, a syn.)
Matthew, W. D. 1899 A, p. 37. (Notharctus.)
Trouessart, E. L. 1897 A, p. 70. (Syn. of T. rostratum.)
 Eocene (Bridger); Wyoming.
 Possibly identical with *T. rostratum* Cope.

Tomtherium rostratum Cope.

- Cope, E. D.* 1872 E, p. 470.

- Cope, E. D. 1873 E, p. 548.
 1873 U, p. 3.
 1876 E.
 1884 O, p. 221, pl. xxv, figs. 1-9.
 1885 K, p. 464, figs. 5-7. *
 Marsh, O. C. 1875 B, p. 239. (Syn. of *Limnotherium* affine.)

- Matthew, W. D. 1899 A, p. 37. (Syn. of *Notharctus tenebrosus*.)
 Osborn, Scott, and Speir 1878 A, p. 13.
 Roger, O. 1896 A, p. 251.
 Trouessart, E. L. 1897 A, p. 70.
 Eocene (Bridger); Wyoming.

LIMNOTHERIUM Marsh. Type *L. tyrannus* Marsh.

- Marsh, O. C. 1871 D, p. 43.
 Cope, E. D. 1884 O, p. 220.
 1887 S, p. 253.
 Marsh, O. C. 1872 N.
 1875 B, p. 239.
 1877 E.
 1895 D, p. 498.
 Matthew, W. D. 1899 A, p. 37. (Syn. of *Notharctus*.)
 Nicholson and Lydekker 1889 A, p. 1372.
 Schlosser, M. 1887 B, p. 36. (Syn. of *Tomitherium*.)
 Trouessart, E. L. 1897 A, p. 70. (Syn. of *Tomitherium*.)

- Zittel, K. A. 1893 B, p. 693. (Syn. of *Tomitherium*.)

***Limnotherium tyrannus* Marsh.**

- Marsh, O. C. 1871 D, p. 43.
 Cope, E. D. 1872 E, p. 471. (*Notharctus*.)
 King, C. 1878 A, p. 403.
 Leidy, J. 1872 B, p. 364.
 Matthew, W. D. 1899 A, p. 37. (*Notharctus*.)
 Roger, O. 1896 A, p. 251. (*Tomitherium*.)
 Trouessart, E. L. 1897 A, p. 70. (*Tomitherium*.)
 Eocene (Bridger); Wyoming.

NOTHARCTUS Leidy. Type *N. tenebrosus* Leidy.

- Leidy, J. 1870 Q, p. 114.
 Cope, E. D. 1872 E, p. 471.
 1873 E, p. 548.
 1877 K, p. 135.
 1879 A, p. 43. (Syn. of *Adapis*.)
 1884 O, p. 34.
 1885 K, p. 460.
 Filliol, H. 1883 B, p. 19.
 Flower and Lydekker 1891 A, p. 698.
 Leidy, J. 1871 C, p. 344.
 1873 B, p. 86.
 Marsh, O. C. 1875 B, p. 239.
 1891 L, p. 263.
 Matthew W. D. 1899 A, p. 37.
 Nicholson and Lydekker 1889 A, p. 1466.

- Schlosser, M. 1887 B, p. 22.
 Zittel, K. A. 1893 B, p. 694.

***Notharctus tenebrosus* Leidy**

- Leidy, J. 1870 Q, p. 114.
 Cope, E. D. 1872 E, p. 471.
 1885 K, p. 461, fig. 4.
 Leidy, J. 1871 C, p. 344.
 1872 B, p. 364.
 1873 B, pp. 86, 329, pl. vi, figs. 36, 37.
 Matthew, W. D. 1899 A, p. 37.
 Roger, O. 1896 A, p. 252.
 Trouessart, E. L. 1897 A, p. 70.
 Eocene (Bridger); Wyoming.

LEMURAVUS Marsh. Type *L. distans* Marsh.

- Marsh, O. C. 1875 B, p. 239.
 Cope, E. D. 1877 K, p. 148.
 Marsh, O. C. 1876 G, p. 60.
 1877 E.
 1895 D, p. 498.
 Nicholson and Lydekker 1889 A, p. 1468.
 Zittel, K. A. 1893 B, p. 691.

***Lemuravus distans* Marsh.**

- Marsh, O. C. 1875 B, p. 238.
 King, C. 1878 A, p. 403.
 Matthew, W. D. 1899 A, p. 37. (Syn. of *Hyoposodus paulus*.)
 Roger, O. 1896 A, p. 250.
 Trouessart, E. L. 1897 A, p. 70.
 Eocene (Bridger); Wyoming.

PELYCODUS Cope. Type *Prototomus jarrovii* Cope.

- Cope, E. D. 1875 C, p. 13.
 1875 L, p. 21.
 1882 E, p. 151.
 1884 O, pp. 216, 224.
 1885 K, pp. 459, 467.
 Flower and Lydekker 1891 A, p. 699.
 Nicholson and Lydekker 1889 A, p. 1465.
 Osborn, H. F. 1888 A, p. 1076.
 Rüttimeyer, L. 1888 A, p. 34.
 1891 A, p. 115.

- Schlosser, M. 1887 B, p. 21.
 1894 A, p. 159.
 Steinmann and Doderlein 1890 A, p. 743.
 Zittel, K. A. 1893 B, p. 691.

***Pelycodus frugivorus* Cope.**

- Cope, E. D. 1875 C, p. 14.
 1877 K, p. 144, pl. xxxix, fig. 16. (*Tomtherium*.)
 1881 D, p. 187. (*P. nunienum*.)

Cope, E. D. 1882 E, p. 151.

1884 O, pp. 182, 225, 230, pl. xxva, figs. 4, 5.

Earle, C. 1898 A, p. 262.

Matthew, W. D. 1899 A, pp. 30, 34.

Roger, O. 1896 A, p. 250. (P. frugivorus, P. nunleum.)

Rütimeyer, L. 1888 A, p. 35.

Trouessart, E. L. 1897 A, p. 71.

Zittel, K. A. 1893 B, p. 692, fig. 570.

Eocene (Wasatch, Wind River); New Mexico, Wyoming.

***Pelycodus jarrovii* Cope.**

Cope, E. D. 1874 O, p. 14. (Prototomus.)

1875 C, p. 14.

1876 E, p. 88. (Tomtherium.)

1877 K, pp. 137, 141, pl. xxxix, figs. 17, 18; pl. xl, figs. 1-15. (Tomtherium.)

1881 D, p. 187.

1882 E, p. 151.

1884 O, pp. 225, 228.

Matthew, W. D. 1899 A, p. 30.

Roger, O. 1896 A, p. 250.

Trouessart, E. L. 1897 A, p. 70.

Eocene (Wasatch); New Mexico, Wyoming.

***Pelycodus tutus* Cope.**

Cope, E. D. 1877 K, p. 141, pl. xxxix, fig. 19; pl. xl, figs. 16-25. (Tomtherium.)

1876 E, p. 88. (No description.)

1881 D, p. 187.

1882 E, p. 151.

1884 O, pp. 224, 225, 228, pl. xxva, figs. 1-3.

1885 K, p. 468, figs. 13, 16.

Matthew, W. D. 1899 A, pp. 30, 34.

Roger, O. 1896 A, p. 250.

Rütimeyer, L. 1888 A, p. 35.

Trouessart, E. L. 1897 A, p. 71.

Zittel, K. A. 1893 B, p. 692, fig. 569.

Eocene (Wasatch, Wind River); New Mexico, Wyoming, Colorado.

Hyopsodus Leidy. Type *H. paulus* Leidy.

Leidy, J. 1870 O, p. 110.

Cope, E. D. 1875 C, pp. 13, 18.

1875 L, p. 21.

1877 K, pp. 135, 150.

1882 G, p. 1029. (Diacodexis, type *D. latecuneus*.)

1884 O, pp. 216, 234 (Hyopsodus); pp. 386, 492 (Diacodexis).

1885 K, p. 460.

1886 X, p. 1208.

1887 S, p. 257.

Earle, C. 1898 A, p. 262.

Flower and Lydekker 1891 A, p. 697.

Gaudry, A. 1877 A.

Leidy, J. 1871 C, p. 354.

1872 B, p. 362.

1872 C, p. 20.

1873 B, p. 75.

Lydekker, R. 1885 A.

Marsh, O. C. 1871 D, p. 42. (Hyopsodus.)

1875 B, p. 239.

1877 E.

Nicholson and Lydekker 1889 A, p. 1465.

Osborn, H. F. 1888 E.

Osborn, Scott, and Speir 1878 A, p. 15.

Paylow, M. 1887 A, p. 369. (Diacodexis.)

1888 A, p. 135.

Rütimeyer, L. 1888 A, p. 34.

1891 A, p. 118.

Schlosser, M. 1887 B, p. 21.

1894 A, p. 159.

Scott, W. B. 1892 A, p. 418.

Steinmann and Döderlein 1890 A, p. 743.

Zittel, K. A. 1893 B, p. 220 (Diacodexis); p. 693 (Hyopsodus).

***Hyopsodus gracilis* Marsh.**

Marsh, O. C. 1871 D, p. 42. (Hyopsodus.)

Cope, E. D. 1872 E, p. 471. (Notharctus.)

King, C. 1878 A, p. 407.

Leidy, J. 1872 B, p. 363.

1872 C, p. 20.

Matthew, W. D. 1899 A, pp. 37, 49.

Roger, O. 1896 A, p. 251.

Scott, W. B. 1890 A, p. 471.

Scott and Osborn 1887 A, p. 255.

Trouessart, E. L. 1897 A, p. 71.

Eocene (Bridger, Uinta); Wyoming.

***Hyopsodus laticuneus* (Cope).**

Cope, E. D. 1882 E, pp. 179, 181. (Phenacodus laticuneus, in part.)

1882 GG, p. 1029. (Diacodexis.)

1884 O, p. 492 pl. xxve, figs. 17, molars; p. 18 (Diacodexis).

1884 AA, p. 901, figs. 24b, c. (Diacodexis.)

Matthew, W. D. 1899 A, p. 30.

Pavlow, M. 1887 A, p. 369. (Diacodexis.)

Roger, O. 1896 A, p. 167. (Diacodexis?)

Trouessart, E. L. 1897 A, p. 726.

Eocene (Wasatch); Wyoming.

Dr. Matthew (op. cit.) states that the molars, upper and lower, of Cope's *D. laticuneus* belong to *Hyopsodus*, the premolars to *Hyracotherium* index.

***Hyopsodus lemoinianus* Cope.**

Cope, E. D. 1882 E, p. 148.

1884 O, pp. 235, 236, pl. xxlve, figs. 8, 9.

Matthew, W. D. 1899 A, pp. 30, 84.

Roger, O. 1896 A, p. 251.

Trouessart, E. L. 1897 A, p. 71.

Eocene (Wasatch, Wind River); Wyoming.

***Hyopsodus minusculus* Leidy.**

Leidy, J. 1873 B, pp. 81, 320, pl. xxvii, fig. 5.

Cope, E. D. 1875 C, p. 18. (Syn. of *H. vicarius*.)

1880 O, p. 908. (Syn. ? of *H. vicarius*.)

1884 O, p. 237. (Syn. of *H. vicarius*.)

King, C. 1878 A, p. 403.

Matthew, W. D. 1899 A, p. 87.

Roger, O. 1896 A, p. 251.

Trouessart, E. L. 1897 A, p. 71.

Eocene (Bridger); Wyoming.

May be identical with *H. vicarius*.

***Hyopsodus miticulus* Cope.**

Cope, E. D. 1874 O, p. 8. (Esthonyx.)

1875 C, p. 18.

1877 K, p. 150, pl. xlv, figs. 10-12.

- Cope, E. D. 1882 E, p. 149.
 1884 O, p. 235.
 Matthew, W. D. 1899 A, pp. 30, 34.
 Roger, O. 1896 A, p. 251.
 Trouessart, E. L. 1897 A, p. 71.
 Eocene (Wasatch, Wind River); New Mexico.

Hypsodus paulus Leidy.

- Leidy, J. 1870 O, p. 110.
 Cope, E. D. 1873 E, p. 609.
 1873 U, p. 1.
 1875 C, p. 18.
 1881 D, p. 186.
 1882 E, p. 148.
 1884 O, pp. 235, 237.
 1885 K, p. 460, fig. 2.
 1887 I, p. 657.
 King, C. 1878 A, p. 403.
 Leidy, J. 1871 C, p. 354.
 1872 B, p. 363.
 1873 B, pp. 75, 320, pl. vi, figs. 1-9, 18-20.
 Marsh, D. C. 1871 D, p. 42. (*Hypsodus*.)
 Matthew, W. D. 1899 A, pp. 30, 34, 37.
 Osborn, Scott, and Speir 1878 A, p. 15.
 Pavlow, M. 1887 A, p. 371.
 Roger, O. 1896 A, p. 251.
 Trouessart, E. L. 1897 A, p. 71.
 Eocene (Wasatch, Wind River, Bridger); Wyoming.

MICROSYPUS Leidy. Type *M. gracilis* Leidy.

- Leidy, J. 1872 C, p. 20.
 Cope, E. D. 1875 C, p. 13.
 1877 K, p. 134.
 1884 K, p. 319.
 1884 O, pp. xxxv, 215, 216, 240.
 1885 K, p. 465.
 Flower and Lydekker 1891 A, p. 698.
 Gaudry, A. 1877 A.
 Leidy, J. 1873 B, p. 82.
 Marsh, O. C. 1875 B, p. 239.
 Matthew, W. D. 1897 C, p. 265.
 Nicholson and Lydekker 1889 A, p. 1466.
 Schlosser, M. 1887 B, pp. 40, 49.
 Zittel, K. A. 1893 B, p. 693.
Microsyops elegans (Marsh).
 Marsh, O. C. 1871 D, p. 43. (*Limnotherium*.)
 Cope, E. D. 1884 O, p. 217.
 1887 S, p. 257, fig. 30.
 King, C. 1878 A, p. 403.
 Leidy, J. 1872 B, p. 364. (*Limnotherium*.)
 1873 B, pp. 83, 320.
 Matthew, W. D. 1899 A, p. 37.
 Roger, O. 1896 A, p. 251 (syn. of *M. gracilis*); p. 252 (*Notharctus*).
 Trouessart, E. L. 1897 A, p. 72.
 Eocene (Bridger); Wyoming.

Microsyops gracilis Leidy.

- Leidy, J. 1872 C, p. 20.
 Cope, E. D. 1884 O, p. 216.
 1885 K, p. 465, fig. 2.

Hypsodus powellianus Cope.

- Cope, E. D. 1884 O, p. 235, pl. xxiiid, figs. 3, 4.
 1882 E, pp. 179, 180. (*Phenacodus zunien-*
sis.)
 Matthew, W. D. 1897 C, p. 270.
 1899 A, p. 30.
 Osborn, H. F. 1897 G, p. 256.
 Roger, O. 1896 A, p. 251.
 Trouessart, E. L. 1897 A, p. 71.
 Eocene (Wasatch); Wyoming.

Hypsodus vicarius Cope.

- Cope, E. D. 1873 U, p. 1. (*Microsyops*.)
 1873 E, p. 609. (*Microsyops*.)
 1875 C, p. 18.
 1880 O, p. 908.
 1881 D, p. 186.
 1882 E, p. 149.
 1884 O, pp. 235, 237, pl. xxiv, figs. 20, 21; pl.
 xxva, fig. 7.
 1885 K, p. 460, fig. 2.
 Lydekker, R. 1885 E, p. 470.
 Matthew, W. D. 1899 A, pp. 30, 34, 37.
 Nicholson and Lydekker 1889 A, p. 1465, fig. 1348.
 Roger, O. 1896 A, p. 251.
 Schlosser, M. 1887 B, p. 21.
 Trouessart, E. L. 1897 A, p. 71.
 Eocene (Wasatch, Wind River, Bridger); Wyoming.

- Leidy, J. 1873 B, p. 83, pl. vi, figs. 14-17.
 Marsh, O. C. 1881 D, p. 188.
 Matthew, W. D. 1899 A, pp. 30, 34, 37.
 Roger, O. 1896 A, p. 251.
 Eocene (Wasatch, Wind River, Bridger); Wyoming.

Microsyops scottianus Cope.

- Cope, E. D. 1881 D, p. 188.
 1884 O, p. 217, pl. xxiva, fig. 2.
 Matthew, W. D. 1899 A, p. 34.
 Roger, O. 1896 A, p. 251.
 Trouessart, E. L. 1897 A, p. 72.
 Eocene (Wind River); Wyoming.

Microsyops speirianus Cope.

- Cope, E. D. 1880 O, p. 908.
 1881 D, p. 188.
 1882 C, p. 463. (*M. spierianus*.)
 1884 O, p. 216, pl. xxva, fig. 8. (*M. spier-*
ianus.)
 Matthew, W. D. 1899 A, p. 30.
 Roger, O. 1896 A, p. 251.
 Trouessart, E. L. 1897 A, p. 72.
 Eocene (Wind River); Wyoming.

Microsyops uintensis Osborn.

- Osborn, H. F. 1895 A, p. 77, fig. 1.
 Matthew, W. D. 1899 A, p. 49.
 Roger, O. 1896 A, p. 251.
 Trouessart, E. L. 1897 A, p. 72.
 Eocene (Uinta); Wyoming.

Microsus Leidy. Type *M. cuspidatus* Leidy.

Leidy, J. 1870 Q, p. 11.

1871 C, p. 354.

1872 B, p. 363.

1873 B, p. 81.

Trouessart, E. L. 1897 A, p. 72. (Syn. of *Microsypops*.)

Zittel, K. A. 1893 B, pp. 688, 693.

Microsus cuspidatus Leidy.

Leidy, J. 1870 Q, p. 113.

1871 C, p. 354.

1872 B, p. 363.

1873 B, pp. 81, 321, pl. vi, figs. 10, 11.

Matthew, W. D. 1899 A, p. 37.

Trouessart, E. L. 1897 A, p. 72. (Syn. of *Microsypops gracilis*.)

Eocene (Bridger); Wyoming.

Menotherium Cope. Type *M. lemurinum* Cope.

Cope, E. D. 1873 R, p. 419.

1874 B, p. 510.

1875 N, p. 256.

1884 O, pp. 788, 808.

Marsh, O. C. 1875 B, p. 240. (*Laopithecus*, type *L. robustus*.)

1877 E.

Matthew, W. D. 1899 A, p. 59. (Syn. of *Leptocherus*.)

Scott, W. B. 1890 A, p. 471. (*Menotherium*, *Laopithecus*.)

Zittel, K. A. 1893 B, p. 696.

Menotherium lemurinum Cope.

Cope, E. D. 1873 R, p. 419.

1874 B, p. 510.

1874 F, p. 22.

Cope, E. D. 1884 O, p. 808, pl. lxxvi, figs. 34-36.

Matthew, W. D. 1899 A, p. 60. (*Leptocherus*.)

Trouessart, E. L. 1897 A, p. 72.

Oligocene (White River); Colorado.

Menotherium robustum (Marsh).

Marsh, O. C. 1875 B, p. 240. (*Laopithecus*.)

King, C. 1878 A, p. 411. (*Laopithecus*.)

Marsh, O. C. 1893 D, p. 412, pl. x, fig. 5. (*Laopithecus*.)

Matthew, W. D. 1899 A, p. 59. (Syn. of *Leptocherus spectabilis*.)

Roger, O. 1896 A, p. 252. (*Laopithecus*.)

Trouessart, E. L. 1897 A, p. 72. (Syn. of *M. lemurinum*.)

Oligocene (White River); 30 miles south of Black Hills, South Dakota.

Indrodon Cope. Type *I. malaris* Cope.

Cope, E. D. 1884 K, pp. 318, 319.

1884 O, p. xxxv.

1884 R, p. 60.

1885 K, p. 465.

Flower and Lydekker 1891 A, p. 699.

Matthew, W. D. 1897 C, p. 265.

Osborn and Earle 1895 A, p. 16.

Zittel, K. A. 1893 B, p. 696.

Indrodon malaris Cope.

Cope, E. D. 1884 K, p. 318.

Cope, E. D. 1884 R, p. 61.

1885 K, p. 465.

1888 CC, p. 304.

Matthew, W. D. 1897 C, p. 320.

1899 A, p. 29.

Osborn and Earle 1895 A, p. 16, figs. 3-5.

Roger, O. 1896 A, p. 252.

Trouessart, E. L. 1897 A, p. 72.

Eocene (Torrejon); New Mexico.

Opisthotomus Cope. Type *O. astutus* Cope.

Cope, E. D. 1875 C, pp. 13, 15.

1877 K, pp. 135, 151.

1884 O, p. 216.

1885 K, p. 460.

Osborn, Scott, and Speir 1878 A, p. 17.

Schlosser, M. 1887 B, p. 34. (= ? *Washakius*.)

Zittel, K. A. 1893 B, p. 696.

Opisthotomus astutus Cope.

Cope, E. D. 1875 C, p. 16.

1877 K, p. 152, pl. xlv, fig. 9.

Osborn, Scott, and Speir 1878 A, p. 17.

Roger, O. 1896 A, p. 252.

Trouessart, E. L. 1897 A, p. 73.

Eocene; New Mexico, Wyoming.

Opisthotomus flagrans Cope.

Cope, E. D. 1875 C, p. 16.

1877 K, p. 152, pl. xlv, fig. 8.

Roger, O. 1896 A, p. 252.

Trouessart, E. L. 1897 A, p. 73.

Eocene; New Mexico.

Apheliscus Cope. Type *A. insidiosus* Cope.

Cope, E. D. 1875 C, pp. 13, 16.

1877 K, pp. 135, 137.

1884 O, p. 216.

1885 K, p. 460.

Zittel, K. A. 1893 B, p. 696.

Apheliscus insidiosus Cope.

Cope, E. D. 1874 O, p. 14. (*Prototomus*.)

Cope, E. D. 1875 C, p. 17.

1877 K, p. 147.

1885 K, p. 460.

Roger, O. 1896 A, p. 253.

Trouessart, E. L. 1897 A, p. 73.

Eocene; New Mexico.

SARCOLEMUR Cope. Type *Antiacodon furcatus* Cope.

Cope, E. D. 1875 N, p. 256.

1877 K, pp. 134, 147.

1884 O, pp. 216, 233.

1885 K, p. 460.

Trouessart, E. L. 1898 A, p. 73.

Zittel, K. A. 1893 B, p. 73.

***Sarcolemur crassus* Cope.**Cope, E. D. 1875 C, p. 17. (*Antiacodon*.)

1877 K, p. 149, pl. xlv, fig. 16.

Roger, O. 1896 A, p. 253.

Trouessart, E. L. 1897 A, p. 73.

Eocene (Wasatch); New Mexico.

***Sarcolemur mentalis* Cope.**Cope, E. D. 1875 C, p. 17. (*Antiacodon*.)

1875 N, p. 256.

1877 K, p. 149, pl. xlv, fig. 15.

Roger, O. 1896 A, p. 253.

Trouessart, E. L. 1897 A, p. 73.

Eocene (Wasatch); New Mexico.

***Sarcolemur pygmaeus* Cope.**Cope, E. D. 1872 M, p. 2 of Palæont. Bull. (*Lophotherium*.)1872 M (1873), p. 461. (*Hyopodius*.)1873 E, p. 607 (*Antiacodon pygmaeus*); p. 608 (*A. furcatus*).1873 U, p. 1. (*Antiacodon pygmaeus*, *Antiacodon furcatus*.)1875 N, p. 256. (*S. furcatus*, *S. pygmaeus*.)1877 K, p. 148. (*S. pygmaeus*, *S. furcatus*.)

1884 O, p. 233, pl. xxiv, figs. 18, 19.

Matthew, W. D. 1899 A, p. 38.

Roger, O. 1896 A, p. 253.

Trouessart, E. L. 1897 A, p. 73.

Eocene (Bridger); Wyoming.

HIPPOSYUS Leidy. Type *H. formosus* Leidy.

Leidy, J. 1872 D, p. 37.

Cope, E. D. 1874 M, p. 82.

1887 S, p. 258.

Leidy, J. 1873 B, p. 90.

Marsh, O. C. 1875 B, p. 239.

1877 E.

Schlosser, M. 1887 B, p. 36.

Zittel, K. A. 1893 B, p. 696.

***Hipposyus formosus* Leidy.**

Leidy, J. 1872 D, p. 37.

1873 B, pp. 90, 321, pl. vi, fig. 41; pl. xxvii, figs. 1, 2.

Matthew, W. D. 1899 A, p. 37.

Roger, O. 1896 A, p. 253.

Trouessart, E. L. 1897 A, p. 73.

Eocene (Bridger); Wyoming.

***Hipposyus robustior* Leidy.**Leidy, J. 1872 B, p. 364. (*Notharctus*.)Cope, E. D. 1872 E, p. 471. (*Notharctus*.)

Leidy, J. 1873 B, pp. 93, 321, pl. vi, fig. 40.

Matthew, W. D. 1899 A, p. 37.

Roger, O. 1896 A, p. 253.

Trouessart, E. L. 1897 A, p. 74.

Eocene (Bridger); Wyoming.

BATHRODON Marsh. Type *B. typus* Marsh.

Marsh, O. C. 1872 I, p. 211.

Cope, E. D. 1882 E, p. 165.

Marsh, O. C. 1875 B, p. 238.

1877 A, p. 81.

1877 E.

Schlosser, M. 1887 B, p. 37.

Zittel, K. A. 1893 B, p. 696.

***Bathrodon annectens* Marsh.**

Marsh, O. C. 1872 I, p. 211.

Matthew, W. D. 1899 A, p. 37.

Roger, O. 1896 A, p. 253.

Trouessart, E. L. 1897 A, p. 74.

Eocene (Bridger); Wyoming.

***Bathrodon typus* Marsh.**

Marsh, O. C. 1872 I, p. 211.

Matthew, W. D. 1899 A, p. 37.

Roger, O. 1896 A, p. 253.

Trouessart, E. L. 1897 A, p. 74.

Eocene (Bridger); Wyoming.

TELMALESTES Marsh. Type *T. crassus* Marsh.

Marsh, O. C. 1872 I, p. 206.

Cope, E. D. 1877 K, p. 148. (*Telmatolestes*.)Marsh, O. C. 1872 N, p. 405. (*Telmatolestes*.)1875 B, p. 239. (*Telmatolestes*.)1877 E. (*Telmatolestes*.)Nicholson and Lydekker 1889 A, p. 1466. (*Telmatolestes*.)Schlosser, M. 1887 B, p. 37. (*Telmatolestes*.)Trouessart, E. L. 1897 A, p. 74. (*Telmatolestes*.)Zittel, K. A. 1893 B, p. 696. (*Telmatolestes*.)***Telmalestes crassus* Marsh.**

Marsh, O. C. 1872 I, p. 206.

Matthew, W. D. 1899 A, p. 37.

Roger, O. 1896 A, p. 253. (*Telmatolestes*.)

Schlosser, M. 1887 B, p. 37.

Trouessart, E. L. 1897 A, p. 74.

Eocene (Bridger); Wyoming.

HEMIACODON Marsh. Type *H. gracilis* Marsh.

Marsh, O. C. 1872 I, p. 212.
1877 E.

Schlosser, M. 1887 B, p. 37.
Zittel, K. A. 1893 B, p. 688.

Hemiacodon gracilis Marsh.

Marsh, O. C. 1872 I, p. 212.
Roger, O. 1896 A, p. 253.
Trouessart, E. L. 1897 A, p. 74.
Eocene (Bridger); Wyoming.

Hemiacodon pucillus Marsh.

Marsh, O. C. 1872 I, p. 213.
Matthew, W. D. 1899 A, p. 38.
Roger, O. 1896 A, p. 253. (H. pusillus.)
Trouessart, E. L. 1897 A, p. 74. (H. pusillus.)
Eocene (Bridger); Wyoming.

THINOLESTES Marsh. Type *T. anceps* Marsh.

Marsh, O. C. 1872 I, p. 205.
1872 N.
1875 B, p. 239.
1877 E.
Nicholson and Lydekker 1889 A, p. 1466.
Schlosser, M. 1887 B, p. 37.
Zittel, K. A. 1893 B, p. 696.

Thinolestes anceps Marsh.

Marsh, O. C. 1872 I, p. 205.
Matthew, W. D. 1899 A, p. 37.
Roger, O. 1896 A, p. 253.
Trouessart, E. L. 1897 A, p. 74.
Eocene (Bridger); Wyoming.

STENACODON Marsh. Type *S. rarus* Marsh.

Marsh, O. C. 1872 I, p. 210.
Schlosser, M. 1887 B, p. 37.
Zittel, K. A. 1893 B, p. 696.

Stenacodon rarus Marsh.

Marsh, O. C. 1872 I, p. 210.

Marsh, O. C. 1894 L, p. 265.
Matthew, W. D. 1899 A, p. 48.
Roger, O. 1896 A, p. 253.
Trouessart, E. L. 1897 A, p. 74.
Eocene (Bridger); Wyoming.

MESACODON Marsh. Type *M. speciosus* Marsh.

Marsh, O. C. 1872 I, p. 212.
1875 B, p. 239.
1877 E.
Schlosser, M. 1887 B, p. 37.
1890 B, p. 64.
Zittel, K. A. 1893 B, p. 696.

Mesacodon speciosus Marsh.

Marsh, O. C. 1872 I, p. 212.
Matthew, W. D. 1899 A, p. 38.
Roger, O. 1896 A, p. 253.
Trouessart, E. L. 1897 A, p. 74.
Eocene (Bridger); Wyoming.

PALÆACODON Leidy. Type *P. verus* Leidy.

Leidy, J. 1872 C, p. 21.
1873 B, p. 122.
Marsh, O. C. 1872 I, p. 224.
1875 B, p. 239.
1877 E.
Schlosser, M. 1887 B, pp. 35, 144.
Zittel, K. A. 1893 B, p. 688.

Palæacodon vagus Marsh.

Marsh, O. C. 1872 I, p. 224.
King, C. 1878 A, p. 403.
Matthew, W. D. 1899 A, p. 38.
Roger, O. 1896 A, p. 253.

Trouessart, E. L. 1897 A, p. 74.
Eocene (Bridger); Wyoming.

Palæacodon verus Leidy.

Leidy, J. 1872 C, p. 21.
King, C. 1878 A, p. 403.
Leidy, J. 1872 B, p. 356.
1873 B, pp. 122, 336, pl. vi, fig. 46.
Marsh, O. C. 1872 I, p. 224.
Matthew, W. D. 1899 A, p. 38.
Roger, O. 1896 A, p. 253.
Trouessart, E. L. 1897 A, p. 74.
Eocene (Bridger); Wyoming.

ADDENDA ET CORRIGENDA.

- Page 131, second column, line 15. For "Lazier," read "Laizer."
- Page 230. Under Trouessart, E. L., 1897 A, instead of "pp. 665-1264," read "pp. 1-664." Wherever after page 716 of the present Bibliography and Catalogue Trouessart, E. L., 1898 A, is quoted, "1897" must be substituted for "1898."
- Page 274. For "EUSELACHII," read "ARISTOSELACHII." *Euselachii* has recently been employed by Parker and Haswell in a different sense.
- Page 304. Under *Otodus divaricatus* insert "Ledy, J." before "1873 B," etc.
- Page 361. Above "Osteolepidæ" insert the following: *Spermatodus pustulosus* Cope. Cope, E. D. 1894 F, p. 438, text fig. 4, Permian, Texas. Both genus and species are new.
- Page 387. Under *Empo nepaholica*, after "Stewart, A. 1900 A. p. 332," insert "pl. lix, figs. 1-9; pl. lxi figs. 2-5."
- Page 393. Under the genus *Anogmus* insert "Cope, E. D., 1877 G, p. 584."
- Page 399. Under *Sylæmus latifrons*, after "1877 K. p. 27," insert "pl. xxlii, fig. 1."
- Page 442. Under *Lytoloma platyops*, after "Cope, E. D., 1869 M, p. 149," insert "pl. vi."
- Page 548. Under *Paleosauropus primævus*, instead of "Silliman, B," read "Amer. Jour. Science."
- Page 620. *Hipparion minimum* was originally described as *Anchitherium minimum*, and ought to have been arranged under *Anchitherium*.
- Page 659. As type of *Thyasus* substitute "*T. pccari* Fischer."

INDEX.

[In this index the numbers printed in roman indicate pages on which names occur that are adopted and are used in the headings; numbers printed in *italic* are those of pages on which names are used as synonyms or are referred to incidentally.]

		Page	
A.			
abbreviatus (Mioplosus).....	404	acinaces (Dittodus).....	266
abbreviatus (Oracanthus).....	352	acinaciformis (Physonemus).....	333
aberrans (Achenodon).....	654	acinaciformis (Xystracanthus).....	333
aberrans (Parahyus).....	654	Acipenser.....	371
abnormus (Sauroidlehnites).....	553	Acipenseridae.....	371
abnormus (Typopus).....	553	Acipenserini.....	371
abradens (Zapsalis).....	490	Acipenseroides.....	365
abrasus (Mesodon).....	372	Aciprion.....	477
abrasus (Typodus).....	372	acolytus (Hyopsodus).....	606
abruptus (Holosaurus).....	471	acolytus (Mioclenus).....	606
absarokæ (Deltatherium).....	753	Acondylacanthus.....	324, 329
absarokæ (Didelphodus).....	753	acre (Titanotherium).....	633, 637
acadianum (Dendrerpeton).....	418	Acrodobatis.....	310
acadianus (Eosaurus).....	421	Acrodontidae.....	298
acadica (Cyathaspis).....	340	Acrodus.....	299
acadica (Diplaspis).....	340	Acrolepis.....	369
acadica (Phlyctenaspis).....	345	Actemys.....	449
acadica (Pteraspis).....	340	Actinistia.....	363
acadicus (Cocosteus).....	345	Actinochiri.....	378
acadicus (Phlyctenius).....	345	Actinophorus.....	368
Acanthaspis.....	332	Actinopteri.....	364
acanthicus (Ichthyodectes).....	384, 386	Actinopterygia.....	364
Acanthodes.....	273	Actinospondyli.....	301
Acanthodidae.....	273	aculeata (Sinopa).....	752
Acanthodii.....	273	aculeata (Styptobasis).....	272
Acanthodini.....	273	aculeatus (Gasterosteus).....	397
Acanthoëside.....	273	aculeatus (Stypolophus).....	752
Acanthoësus.....	273	aculeatus (Triacodon).....	758
Acantholepis.....	332	acuminata (Lamna).....	304, 306
Accipitres.....	535	acuminatus (Bascanion).....	480
Accipitrinae.....	535	acuminatus (Cladodus).....	267
Acetrophorus.....	374	acuminatus (Ctenopterygius).....	282
acer (Crocodylus).....	512	acuminatus (Pristodus).....	232
acer (Crocodylus).....	512	acuminatus (Zamenis).....	480
acer (Esthonyx).....	715	acus (Colobrynychus).....	331
acer (Megaceratops).....	637	acuta (Dafila).....	529
acer (Symborodon).....	637	acuta (Ostinaspis).....	297
Aceratheriinae.....	645	acutidens (Carcharodon).....	307
Aceratherium.....	640, 641, 643, 645, 646, 647	acutidens (Champsodelphis).....	590
Achenodon.....	654	acutidens (Esthonyx).....	715
Achenodontinae.....	653	acutidens (Holcodon).....	440, 466, 469, 516
Acheloma.....	423	acutidens (Mosasaurus).....	466
Acherontemys.....	446	acutidens (Pristodelphinus).....	590
aciculata (Sphagegrea).....	325	acutidens (Xiphotrygon).....	319
aciedentatum (Smilerpeton).....	413	acutum (Aceratherium).....	647
aciedentatus (Hylonomus).....	413	acutus (Cheirodus).....	369
acinaces (Diplodus).....	266	acutus (Chirodus).....	369
acinaces (Dissodus).....	266	acutus (Ctenacanthus).....	327
		acutus (Dapedoglossus).....	393

	Page.		Page.
acutus (Petrodus)	297	affinis (Lophiodon)	638
acutus (Phareodon)	393	affinis (Loxolophodon)	794
acutus (Phareodus)	393	affinis (Merycododon)	663
acutus (Turscodus)	369	affinis (Mesacanthus)	223
adamsanus (Sillimanus)	551, 552	affinis (Oreodon)	663
Adapidae	788	affinis (Petalodus)	299
adapinus (Loxolophus)	745	affinis (Scoleophagus)	537
Adapis	788, 789	affinis (Stegosaurus)	496
Adelonycteris	742	affinis (Telmatornis)	528
Adjidaumo	720	affinis (Uria)	524
Adocidae	444	Agabelus	593
Adocus	457, 444, 445	Agamidæ	474
aduncus (Galeocerdo)	311	Aganodus	265
aduncus (Galeus)	311	aganus (Clastes)	577
aduncus (Parlotichus)	428	aganus (Lepisosteus)	377
advenum (Diceratherium)	641	agapetillum (Tricium)	736
advenus (Amyndodon)	641	agapetillus (Anisonchus)	602
advenus (Baptornis)	522	agapetillus (Oxyacodon)	602
advenus (Orthocynodon)	641	agapetillus (Palaeolagus)	735
Æchmophorus	524	Agassichthys	349
Ælurodon	767, 773, 774	agassizianus (Campodus)	297
Æluroidea	777	agassizi (Pristis)	316
Ælurotherium	778	agassizi (Semionotus)	375
æmulus (Anaptomorphus)	787	agassizi (Ischyterus)	375
æmulus (Antlacodon)	787	agassizi (Palæoniscus)	375
æqualipes (Plesionis)	550	agassizi (Titanichthys)	348
æquicostatus (Acondylacanthus)	329	Agassizodus	256
æquifacies (Tichosteus)	493	Agathaumide	496
æquipinnis (Dapedoglossus)	393	Agathaumas	498, 499, 500, 502
æquipinnis (Phareodus)	393	agile (Hyracotherium)	611
æsopt (Hydrochaerus)	734	agilis (Adocus)	444
æsopt (Oromys)	734	agilis (Allosaurus)	489
Ætheospondyli	574	agilis (Boavus)	479
Aethosauride	511	agilis (Cimolodon)	559
Æthyopus	544, 550	agilis (Cimolomys)	569
Ætobatide	319	agilis (Claosaurus)	502
Ætobatis	321	agilis (Cœlurus)	493
Ætobatis	321	agilis (Cosoryx)	683
Ætobatus	321	agilis (Dromopus)	543
Ætomorphæ	535	agilis (Eobatrachus)	425
Ætosauria	511	agilis (Ephippus)	611
Ætosauride	511	agilis (Graculavus)	519
affine (Anchitherium)	615	agilis (Hadrosaurus)	502
affine (Hipparion)	619	agilis (Ichthyornis)	519
affine (Hippotherium)	619	agilis (Leptichthys)	392
affine (Limnotherium)	789	agilis (Limnocyon)	782
affine (Tinoceras)	704	agilis (Merycodus)	663
affine (Tomitherium)	788	agilis (Miæcis)	752
affinis (Acanthodes)	273	agilis (Morosaurus)	493
affinis (Acanthoëssus)	273	agilis (Nanosaurus)	505
affinis (Bacina)	437	agilis (Orohippus)	611
affinis (Balæna)	601	agilis (Sinopa)	752
affinis (Barosaurus)	485	agilis (Thespesius)	502
affinis (Cataractes)	524	agilis (Thinosaurus)	476
affinis (Chomatodus)	280	agilis (Stypolophus)	752
affinis (Clidastes)	468	Agnomius	353
affinis (Corax)	309	Agomphus	444
affinis (Crocodylus)	512	Agorophus	599
affinis (Crocodylus)	512	Agouti	734
affinis (Deltodopsis)	291	agrarius (Hyrachyus)	638
affinis (Ennacodon)	568	agreste (Anchitherium)	613
affinis (Enneodon)	568	agreste (Dinoceras)	702
affinis (Hypohippus)	615	agrestis (Colonoceras)	639
affinis (Hyrachyus)	638	agrestis (Hyrachyus)	638
affinis (Lisgodus)	281	agrestis (Meshippus)	613
affinis (Lomvia)	524	agrestis (Miohippus)	613

	Page.		Page.
Agriocherida	662	alternatus (Cladodus)	268
Agriocherinae	662	alticeps (Tinoceras)	702
Agriocherinus	662, 663, 664, 665	alticeps (Uintatherium)	702
Agriomeryx	663, 664	alticornis (Bison)	500
Agriotherium	664	alticornis (Ceratops)	500
aguti (Ectocynodon)	428	alticornis (Polyonax)	500
aguti (Pariotichus)	428	alticuspis (Diacodon)	740
Aistopoda	410, 411	altidens (Centetodon)	740
Aix	529	altidens (Didymictis)	754
ajax (Apatosaurus)	485	altidens (Viverravus)	754
alaskensis (Bison)	689	altigenis (Temnocyon)	773
alatus (Deltodus)	292	altior (Ptychodus)	318
alatus (Empedias)	427	altirostre (Titanotherium)	637
alatus (Empedocles)	427	altirostris (Symborodon)	635, 637
alatus (Ischypterus)	375	altonensis (Physonemus)	333
alatus (Semionotus)	375	altonensis (Stethacanthus)	333
alberti (Palaeoniscus)	367	altus (Amphicelias)	486
alberti (Rhadinichthys)	367	altus (Coniformis)	522
albifrons (Anser)	530	altus (Diplomystus)	391
Albulidae	390	altus (Dryosaurus)	501
Alburnops	505, 506	altus (Laosaurus)	501
Alca	524	altus (Melengris)	534
Alce	685	altus (Pleurocelus)	483
Alces	685	altus (Procamelus)	677
alces (Cervus)	685	altus (Syntegmodus)	390
Aleide	524	alveolatum (Ctenopetion)	415
Aleinae	524	Amacanthus	329
Alcoidea	524	amarorum (Triplopus)	640
Alcoidea	524	Ambloctonidae	755
Alectorides	526	Ambloctonus	756
Alectornithes	533	amblocton (Pristis)	316
Alectoromorphae	533	Amblonyx	544
Alectoropodes	533	Amblotherium	569
alemanii (Platygonus)	661	Amblyctonidae	755
Aletornis	527	Amblyctonus	756
allabiatu (Hadrianus)	450	Amblydactyla	692
Allacodon	557	Amblyodon	416
alleganensis (Dipterus)	352	Amblypoda	692, 701
alleganensis (Petalodus)	278	Amblypterus	365, 368
alleganensis (Rhinoceroidea)	647	Amblypus	538
alleni (Bison)	688	amblyxiphias (Ctenacanthus)	327
alleni (Gyracanthus)	335	Amelurus	382
alleni (Orodus)	295	america (Elephas)	714
Alligator	512, 513, 514	americana (Anas)	529
Alligatoridae	511	americana (Antilocapra)	686
Allodon	557	americana (Fulica)	528
Allodontidae	557	americana (Marca)	529
Allolepidotus	376	americana (Martes)	767
Allomyia	718	americana (Mustela)	767
Allomyini	718	americana (Palaeospis)	340
Allomys	718	americana (Proviverna)	753
Allops	633, 634	americana (Sus)	690
Allopus	538	americana (Taxidea)	765
Allosauridae	487	americanum (Eotherium)	636
Allosaurus	489, 490	americanum (Hyotherium)	656
Allotheria	556	americanum (Mammot)	708
Alopecias	305	americanum (Megatherium)	576
alta (Clupea)	301	americanum (Titanotherium)	636
altarcus (Anchyropsis)	305	americanus (Aleo)	685
altarcus (Leucus)	305	americanus (Alces)	685
altarcus (Rutilus)	305	americanus (Allolepidotus)	376
altarkansanus (Brachyrophus)	506	americanus (Ancodon)	652
alternans (Didelphis)	571	americanus (Ancodus)	653
alternans (Didelphys)	571	americanus (Bison)	689
alternans (Embassia)	571	americanus (Bos)	688, 689
alternans (Peratherium)	571	americanus (Bothrolabis)	656

	Page.		Page.
americanus (Camelus)	680	amplus (Camptonotus)	501
americanus (Castor)	721	amplus (Camptosaurus)	501
americanus (Ceratodus)	356	amplus (Deinodon)	488
americanus (Cervalces)	685	amplus (Diplocolonus)	633
americanus (Cervus)	685	amplus (Megacerops)	633
americanus (Chæropotamus)	652	amplus (Polyrhizodus)	282
americanus (Elaphus)	685	Amynodon	641
americanus (Elephas)	708, 713	Amynodontidæ	641
americanus (Equus)	622, 623	Amynodontinæ	641
americanus (Eriptychius)	359	Amyzon	395
americanus (Harlanus)	689	Anaclitacanthus	328
americanus (Holoptychius)	344, 358, 359	Anacodon	747
americanus (Hyopotamus)	652	anaides (Ichthyodectes)	351
americanus (Manatus)	581	analis (Diplomystus)	391
americanus (Mastodon)	708	Anaptogenia	723
americanus (Menodus)	634, 636	Anaptogonia	723
americanus (Neoplagiulax)	559	Anaptomorphidæ	736
americanus (Otolithus)	408	Anaptomorphus	787
americanus (Palæomeryx)	682	Anas	529
americanus (Pholidophorus)	383	Anatidæ	529
americanus (Rhinoceros)	636	Anatinæ	529
americanus (Sus)	689	Anatoidea	529
americanus (Tapirus)	623	Anatoidæ	529
americanus (Ursus)	763	anax (Clastes)	577
Amia	380	anax (Coryphodon)	698, 699
Amiaceæ	373	anceps (Anchitherium)	611
amicrodus (Enchodus)	388	anceps (Canis)	775
Amidæ	380	anceps (Cimolichthys)	329
Amioidel	373	anceps (Drepanacanthus)	531
Amiopsis	390	anceps (Enchodus)	399
Amiurus	382	anceps (Glyptosaurus)	475
Ammodon	666	anceps (Graculavus)	519
Ammosaurus	491	anceps (Ichthyornis)	519
amorphus (Bryactinus)	325	anceps (Mastodon)	701
Amphibamus	411	anceps (Megalichthys)	360
Amphibia	409	anceps (Miohippus)	613
Amphicentrum	369	anceps (Oracodon)	561
Amphichelydia	436	anceps (Phaganodus)	389
Amphicællas	493	anceps (Physonemus)	531
Amphicællidæ	484	anceps (Rhizodus)	390
Amphicotylus	516	anceps (Thinolestes)	794
Amphicyon	771, 772, 774	anceps (Tinoceras)	704
Amphimys	445	anceps (Titanotherium)	704
Amphilestes	566	anceps (Uinfatherium)	704
Amphilestidæ	566	anceps (Xystracanthus)	334
Amphilestinæ	566	Anchippodontia	715
Amphimorphe	531	Anchippodontidæ	716
Amphiplaga	403	Anchippodus	716
Amphisauridæ	491	Anchippus	615, 615
Amphisaurus	491	Anchisauridæ	491
Amphisbænæ	476	Anchisaurus	491
Amphisbænia	476	Anchisodon	640
Amphisbænidæ	476	Anchitheridæ	608
Amphisbænoidea	476	Anchitherium	612, 613, 614, 615, 617, 795
Amphitheridæ	568, 569	Anchybopsis	395
Amphitherium	565	Anelstrodon	408
amphithorax (Testudo)	451	Anecodon	652, 653
amphiuminis (Oestoccephalus)	414	Anecodontidæ	651
Amphoroosteus	465	Anecodus	652, 653
amplexus (Epanterias)	483	Ancylopoda	690
amplidens (Arctotherium)	763	Ancyropus	538
amplidens (Ursus)	763	anemophilus (Pipistrellus)	742
amplum (Titanotherium)	633	anemophilus (Vesperugo)	712
amplus (Aublysodon)	488	Angulæ	474
amplus (Brontosaurus)	485	anguilliformis (Catopterus)	370
amplus (Camptomus)	562	anguilliformis (Redfieldius)	370

	Page.		Page.
anguillulata (Terrapene).....	449	annectens (Aceratherium).....	644
anguillulata (Toxaspis).....	449	annectens (Bathrodon).....	793
anguinea (Helcura).....	545	annectens (Champsosaurus).....	460
angularis (Chomatodus).....	276	annectens (Claosaurus).....	502
angularis (Deltodus).....	289	annectens (Corvus).....	587
angularis (Orthopleuroides).....	289	annectens (Diceratherium).....	644
angularis (Petalodus).....	276	annectens (Isectolophus).....	627
angularis (Psammodus).....	284	annectens (Loxolophodon).....	704
angularis (Tanaodus).....	276	annectens (Mesosaurus).....	613
angulata (Erisichthe).....	379	annectens (Miohippus).....	613
angulata (Protoephyrena).....	379	annectens (Rhinoceros).....	644
angulatum (Tomitherium).....	744	annectens (Tinoceras).....	704
angulatus (Calamagras).....	480	annulatum (Thinotherium).....	661
angulatus (Chomatodus).....	276	Anogmus.....	393, 795
angulatus (Chriacus).....	744	Anolidae.....	474
angulatus (Cladodus).....	268, 269	anomalous (Palamopus).....	548
angulatus (Ctenacanthus).....	327	Anomodon.....	741
angulatus (Helodus).....	286	Anomodontia.....	426, 430
angulatus (Ogmophis).....	480	Anomopus.....	539, 550
angulatus (Pelycodus).....	744	anonymus (Ptychodus).....	317
angulatus (Portheus).....	379	Anoplonassa.....	597
angulatus (Tanaodus).....	276	Anosteira.....	447
anguliferus (Conchiopsis).....	364	Anosteiridae.....	446
anguliferus (Sironectes).....	468	Anosteirinae.....	446
angusta (Felis).....	782	Anostira.....	447, 452, 453
angusta (Lytoloma).....	441, 442	Anser.....	530
angusta (Plectropterna).....	549	Anseres.....	528, 529
angustarca (Clolia).....	396	Anseriformes.....	528
angustarcus (Alburnops).....	396	anthracina (Peplorhina).....	364
angustarcus (Notropis).....	396	Anthracopus.....	589
angusticeps (Captorhinus).....	429	Anthracosauridae.....	421
angustidens (Amphicyon).....	772	Anthracosaurus.....	481
angustidens (Carcharias).....	307	Anthracotheria.....	651
angustidens (Carcharodon).....	307	Anthracotheridae.....	651
angustidens (Daphænus).....	772	Anthracotheriinae.....	651
angustidens (Entomacodon).....	741	Anthracotherioidea.....	651
angustidens (Eohippus).....	609	Anthracotherium.....	651, 652
angustidens (Hyracotherium).....	609	Antiacodon.....	787, 793
angustidens (Mastodon).....	710, 711	Antiarca.....	342
angustidens (Orohippus).....	609	Antichelopus.....	589
angustidens (Procamelus).....	677	Antilocapra.....	686
angustidens (Tetrabelodon).....	711	Antilocapridae.....	686
angustigenis (Haplacodon).....	633	Antilopina.....	687
angustigenis (Megacerops).....	633	Antilopinae.....	687
angustigenis (Menodus).....	633	antilopinus (Blastomeryx).....	682
angustigenis (Titanotherium).....	633	Antpus.....	540
angustus (Chomatodus).....	280	antiqua (Hypsoirhina).....	477
angustus (Ctenacanthus).....	327	antiqua (Ischyrrhiza).....	398
angustus (Ctenodus).....	354	antiqua (Lomvia).....	524
angustus (Deltodopsis).....	291	antiqua (Thecachampsia).....	512
angustus (Deltodus).....	291	antiqua (Uria).....	524
angustus (Felis).....	782	antiquior (Batrachoides).....	541
angustus (Haploconus).....	694	antiquior (Palaeosauropus).....	548
angustus (Megalichthys).....	360	antiquior (Sauropus).....	548
angustus (Mioclenus).....	694	antiquum (Ischyrotherium).....	461
angustus (Rhizodus).....	360	antiquum (Palaeoniscus).....	368
angustus (Sagenodus).....	354	antiquus (Agriocherus).....	663
angustus (Sandalodus).....	288	antiquus (Amynodon).....	641
angustus (Tricentes).....	694	antiquus (Bison).....	688
Anisacodon.....	637, 740	antiquus (Bos).....	688
Anisichnus.....	541	antiquus (Carcharhinus).....	312
Anisodexis.....	423	antiquus (Cataractes).....	524
Anisonchinae.....	694	antiquus (Cataractes).....	524
Anisonchus.....	602, 694, 695, 696	antiquus (Chiliodon).....	298
Anisopus.....	541	antiquus (Caelosaurus).....	488, 489
anne (Tricium).....	735	antiquus (Crocodylus).....	512

	Page.		Page.
antiquus (Dicotyles)	657	aquilunguis (Dryptosaurus)	488
antiquus (Diodon)	408	aquilunguis (Laelaps)	488
antiquus (Eubradys)	579	aquilunguis (Megalosaurus)	488
antiquus (Histriophorus)	402	Arachnichnus	540
antiquus (Ischyrosaurus)	481	arapahovius (Saurocephalus)	385
antiquus (Istiophorus)	402	arapalovius (Saurocephalus)	385
antiquus (Manatus)	583	aratus (Anogmilius)	393
antiquus (Meleagris)	534	arcamœnus (Calamodon)	574
antiquus (Merycopater)	663	arcamœnus (Stylinodon)	574
antiquus (Mioclenus)	749	Archælurus	781, 782
antiquus (Orthocynodon)	641	Archæobatis	285
antiquus (Perchoerus)	657	Archæobelus	433
antiquus (Physeter)	595	Archæoceti	585
antiquus (Pimelodus)	382	Archæopterygidae	518
antiquus (Prionace)	312	Archæopteryx	518
antiquus (Prionodon)	312, 313	Archæornithes	518
antiquus (Psammodus)	284	Archæotherium	654, 656
antiquus (Sarcotruastes)	748	Archegosauria	480
antiquus (Thinohys)	657	Archegosauridae	419
antiquus (Thinopus)	562	Archegosaurus	419
antiquus (Trichechus)	583	Archelon	440
antiquus (Xiphias)	402	Archiceta	585
antivalidus (Clidastes)	467	Archornithes	518
Antilodus	279	arcidens (Hyracodon)	640
Antrodemus	489	arciferus (Leuciscus)	396
Anura	424	arciferus (Oligobella)	396
Apatacanthus	331	arciferus (Squalius)	396
Apatemys	725	arcta (Exocampe)	544
Apatichnus	539, 540	arctata (Peplorhina)	364
Apatodon	506	arctatum (Elotherium)	685
Apatornis	520	arctatus (Cinodon)	504
Apatornithidae	520	arctatus (Clonodon)	504
Apatosaurus	485, 486	arctatus (Uranoplosus)	373
Apedodus	359	Arctocyon	746
Aper	661	Arctocyonidae	746
Aphelichthys	396	Arctodon	654, 655
Apheliscus	792	Arctodus	763
Aphelophis	480	Arctolidea	762
Aphelops	644, 645, 646, 647	Arctomys	720
Aphododeridae	403	Arctosaurus	492
Aphredoderidae	403	Arctotherium	763
apicalis (Calopodus)	281	arcuatus (Aëtoebatus)	321
apicalis (Stratodus)	387	arcuatus (Antilodus)	279
apicalis (Zatrachys)	422	arcuatus (Chomatodus)	290
apiculatus (Anisonchus)	695	arcuatus (Dryolestes)	569
apiculatus (Hemithlæus)	695	arcuatus (Gillieus)	386
apiculatus (Otodus)	304	arcuatus (Ichthyodectes)	387, 389
apiculatus (Oxyacodon)	602	arcuatus (Orthacanthus)	264
Apœcospondyli	417	arcuatus (Physonemus)	334
appalachianus (Palæoctonus)	490	arcuatus (Pleuracanthus)	264
appalachicolus (Bison)	687	arcuatus (Porthenus)	336
appalachicolus (Ovibos)	687	arcuatus (Rhineaster)	382
appendiculata (Lamna)	304	arcuatus (Stegomus)	511
appendiculatus (Corax)	309	arcuatus (Xystacanthus)	334
appendiculatus (Galeocerdo)	309	Ardea	531
appendiculatus (Galeus)	309	Ardea	531
appendiculatus (Otodus)	304	Ardeide	531
approximatum (Brontozoum)	543	Ardeine	531
approximatus (Eubrontes)	543	Ardeioidea	531
Aprion	312	arenarius (Hybemys)	448
Apriondon	312, 313	arenarum (Merychys)	669
Apeopelix	390	arenatus (Macrepistius)	378
apternus (Phenacodus)	605	arenosa (Baëna)	437
aptus (Crocodylus)	512	arenosus (Strepsodus)	380
aquaticus (Scalops)	738	argentatus (Larus)	525
Aquila	536	Argentiniidae	392

	Page.
Argoides.....	540, 550
Argozoum.....	540, 548, 550
argutus (Venustodus).....	287
arisaigensis (Dendrodus).....	359
arizonica (Bos).....	689
armata (Acanthaspis).....	337
Aristocelachii.....	796
armatum (Anthracotherium).....	652
armatum (Diceratherium).....	644
armatus (Coryphodon).....	698, 699
armatus (Elomeryx).....	652
armatus (Heptacodon).....	652
armatus (Metalophodon).....	698
armatus (Pristicladodus).....	270
armatus (Rhinoceros).....	644
armatus (Stegosaurius).....	496, 498
Arotus.....	556
Artediellus.....	407
Arthrodira.....	344
articulatus (Disorhophus).....	420
Artiodactyla.....	647
Artionychia.....	662
Artionyx.....	663
Arvicola.....	728, 729
Arvicollidæ.....	728
Arvicoline.....	728
Arvicolini.....	728
Asineopidae.....	403
Asineops.....	404
aspiæ (Psittacotherium).....	574
asper (Glyptodon).....	581
asperm (Schistopleurum).....	581
Aspidochelyidæ.....	436
Aspidodus.....	288
Aspidlethys.....	345
Aspidocephali.....	340
Aspidoganoides.....	339
Aspidophorus.....	345
Aspidorhini.....	339
assurgens (Diacodon).....	748
assurgens (Mioclenus).....	748
assurgens (Trilodon).....	748
assurgens (Goniaecodon).....	748
Astephus.....	382
Asteracanthus.....	331
Asterolepidae.....	342
Asterolepides.....	342
Asterolepis.....	342
Asteroptychius.....	330
Asterospondyli.....	275, 301
Asterosteidae.....	349
Asterosteus.....	349
Asthenodon.....	570
Astaspis.....	342
Astrodon.....	184
astuta (Bassarion).....	764
astutus (Bassariscus).....	764
astutus (Opisthotomus).....	792
Atheca.....	435
Atheca.....	435
Athecata.....	435
Atheconia.....	435
Athya.....	530
atlantica (Macrophoca).....	639
atlanticus (Artediellus).....	407
atlanticus (Colophonodon).....	589

	Page.
atlanticus (Squalodon).....	589
Atlantochelys.....	439, 440
Atlantosauridæ.....	484
Atlantosaurus.....	484
atropius (Belosphyx).....	592
atropius (Ixacanthus).....	592
atropius (Pristicodelliphus).....	592
atrox (Clastes).....	577
atrox (Creosaurus).....	489
atrox (Dinotomius).....	779
atrox (Felis).....	782
atrox (Lepidosteus).....	377
atrox (Lepisosteus).....	377
atrox (Uitamastix).....	706
atrox (Uncia).....	782
attenuatus (Loxolophus).....	745
attenuatus (Polymastodon).....	562
attenuatus (Pristis).....	316
attenuatus (Protochriacus).....	745
attenuatus (Titanichthys).....	348
Aublysodon.....	488, 489
Auchenia.....	678, 679
audax (Portheus).....	384
audax (Saurocephalus).....	384
audax (Xiphaetinus).....	384
augusta (Uncia).....	782
augustus (Felis).....	782
aulacodus (Palaeoconus).....	490
aulacodus (Suchoprion).....	490
Aulaxodon.....	577, 578, 579
auriculatus (Carcharias).....	307
auriculatus (Carcharodon).....	307
auritus (Agriocherus).....	668
auritus (Columbus).....	523
auritus (Eucrotaphus).....	663
auritus (Podiceps).....	523
australe (Anchitherium).....	613
australis (Champsosaurus).....	461
australis (Mesohippus).....	613
australis (Miohippus).....	613
Aves.....	517
avunculus (Tricium).....	735
avus (Diplacodon).....	638
avus (Merychippus).....	616
avus (Protohippus).....	616
avus (Teleodus).....	638
avus (Titanotherium).....	638
Axestemus.....	456
Axestus.....	456
Azygostei.....	341

B.

baculiformis (Batacanthus).....	334
Baëna.....	437
Baënidæ.....	437
baileyanus (Trianopus).....	553
baileyi (Sauroidechnites).....	553
bairdi (Anchitherium).....	613
bairdi (Leuciscus).....	396
bairdi (Mesohippus).....	613, 614
bairdi (Miohippus).....	613
bairdi (Palaeotherium).....	613
bairdi (Titanotherium).....	613
bairdianus (Hyrachyus).....	638
bairdianus (Lophiodon).....	639
bairdii (Semotilus).....	396

	Page.		Page.
<i>bairdii</i> (Squalius)	596	<i>Batodon</i>	565
<i>Balæna</i>	599, 600, 601	<i>Batoidel</i>	515
<i>Balænidæ</i>	596	<i>Batrachia</i>	409, 425
<i>Balænodon</i>	596	<i>Batrachichnus</i>	541
<i>Balænoidea</i>	598	<i>Batrachiosaurus</i>	465, 466
<i>Balænoptera</i>	599, 600	<i>Batrachiotherium</i>	465, 466
<i>Balænopteridæ</i>	598	<i>Batrachocephalus</i>	411
<i>Balænopterina</i>	598	<i>Batrachoides</i>	541
<i>baldwini</i> (Chriacus)	745, 746	<i>Batrachoidichnites</i>	538, 541
<i>baldwini</i> (Deltatherium)	745	<i>batrachops</i> (Catostomus)	394
<i>baldwini</i> (Miocænus)	607	<i>Batrachopus</i>	541
<i>Balistes</i>	407	<i>bauri</i> (Cœlophysis)	493
<i>Balistidæ</i>	407	<i>bauri</i> (Cœlurus)	493
<i>Balistini</i>	407	<i>bauri</i> (Tanystropheus)	493
<i>ballardi</i> (Lophiotherium)	611	<i>beani</i> (Mioplosus)	404
<i>ballardi</i> (Orohippus)	611	<i>beata</i> (Emys)	444
<i>ballardi</i> (Pachynolophus)	611	<i>beatus</i> (Adocus)	444
<i>ballensis</i> (Mesogaulus)	721	<i>beecheri</i> (Ganorhynchus)	352
<i>balloviatus</i> (Sciurus)	719	<i>Belemnophilus</i>	597
<i>Baphetes</i>	418	<i>bella</i> (Palæospiza)	537
<i>Baphetidæ</i>	417	<i>bellicincta</i> (Janassa)	276
<i>Baptanodon</i>	463	<i>bellicinctus</i> (Tanaodus)	276
<i>Baptanodonta</i>	461	<i>bellifer</i> (Cladodus)	268
<i>Baptanodontia</i>	463	<i>bellulus</i> (Apatemys)	725
<i>Baptanodontidæ</i>	463	<i>bellulus</i> (Asteroptychius)	330
<i>Baptmys</i>	445	<i>bellulus</i> (Ctenopetalus)	281
<i>Baptornis</i>	522	<i>bellulus</i> (Ctenoptychius)	281
<i>Baptosaurus</i>	468	<i>bellulus</i> (Petalodus)	281
<i>barcenæ</i> (Equus)	624	<i>bellulus</i> (Platyxystrodus)	290
<i>Barornis</i>	522	<i>bellulus</i> (Xystrodus)	290
<i>Baropus</i>	541	<i>bellus</i> (Aletornis)	527
<i>Barosaurus</i>	485	<i>bellus</i> (Apatichnus)	540
<i>barrattii</i> (Anomœpus)	550	<i>bellus</i> (Apatemys)	725
<i>barrattii</i> (Chimæra)	550	<i>bellus</i> (Cimolomys)	568
<i>barrattii</i> (Chimærichnus)	550	<i>bellus</i> (Tinodon)	567
<i>barrattii</i> (Sauropus)	550	<i>Belodon</i>	509, 510
<i>basalis</i> (Campodus)	296	<i>Belodontia</i>	509
<i>basalis</i> (Orodus)	296	<i>Belodontidæ</i>	509
<i>Bascanion</i>	480	<i>Belosphys</i>	592, 593
<i>Basodon</i>	465	<i>Beluga</i>	564
<i>basifissus</i> (Crocodilus)	515	<i>belviderensis</i> (Plesiochelys)	439
<i>basiliatus</i> (Enhydriocyon)	770	<i>bentonla</i> (Protosphyrena)	379
<i>basiliatus</i> (Hyænocyon)	770	<i>bentoniana</i> (Protosphyrena)	379
<i>Basilemys</i>	445	<i>bentonianum</i> (Trinacromerum)	456
<i>Basilosauridæ</i>	586	<i>Bernicia</i>	530
<i>Basilosaurus</i>	586, 587, 588, 589	<i>Berycidæ</i>	402
<i>basitruncatus</i> (Crocodilus)	515	<i>berycinus</i> (Pelecopsis)	399
<i>basitruncatus</i> (Holops)	515	<i>Berycoidea</i>	402
<i>Bassaridæ</i>	764	<i>Beryx</i>	393, 402
<i>Bassaris</i>	764	<i>bialveatus</i> (Deltodopsis)	291
<i>Bassariscus</i>	764	<i>bicalcaratus</i> (Platygonus)	660
<i>Batacanthus</i>	334	<i>bicarlinatus</i> (Dysganus)	504
<i>Bathmodon</i>	697, 698, 699, 700	<i>bicornis</i> (Diplodus)	267
<i>bathmodon</i> (Pantolambda)	696	<i>bicornis</i> (Thrinacodus)	267
<i>Bathmodontidæ</i>	697	<i>bicristatus</i> (Stemmatias)	296
<i>bathrodon</i> (Ammodon)	656	<i>bicristatus</i> (Stemmatodus)	296
<i>bathrodon</i> (Elotherium)	656	<i>biculminatus</i> (Diadectes)	427
<i>Bathrodon</i>	793	<i>biculminatus</i> (Trilodon)	745
<i>Bathycheilodus</i>	270	<i>bicuspidatus</i> (Leptosyrax)	304
<i>Bathygnathus</i>	491	<i>bicuspis</i> (Ictops)	739
<i>bathygnathus</i> (Miacis)	748, 760	<i>bicuspis</i> (Palæictops)	739
<i>bathygnathus</i> (Miocænus)	748	<i>bicuspis</i> (Stypolophus)	739
<i>bathygnathus</i> (Sarcotrachytes)	748	<i>bifidus</i> (Antipus)	540
<i>bathygnathus</i> (Uimacyon)	760	<i>bifidus</i> (Fissodus)	277
<i>Bathyopsidæ</i>	700	<i>biformis</i> (Helodus)	286
<i>Bathyopsis</i>	700	<i>bifurcatus</i> (Lefalophodon)	706

	Page.		Page.
bifurcatus (Stemmatias)	298	bovis (Bos)	690
bifurcatus (Stemmatodus)	298	bowmani (Conosaurops)	388
bilobatum (Chalicotherium)	691	bowmani (Conosaurus)	388
bilobatus (Trimerorhachis)	420	brabensis (Peripitychus)	693
Biloricata	580	Brachydectes	413
bipartitus (Myledaphus)	326	brachygnathus (Portheus)	384
biradicatus (Dimetrodon)	432	brachygnathus (Xiphactinus)	384
biserialis (Pleuracanthus)	264	brachylophum (Anchitherium)	613
Bison	500, 687, 688	brachylophus (Mesohippus)	613
bison (Bison)	689	brachylophus (Miohippus)	613
bison (Bos)	689	Brachymeryx	670
bison (Lepidosteus)	377	brachyodon (Pristis)	316
bisornata (Pseudemys)	449	Brachypodinae	646
bisornata (Trachemys)	449	brachyops (Deinictis)	780, 781
bispinosus (Gasterosteus)	397	brachyops (Dinictis)	780
bisulcatus (Esthonyx)	715	brachyops (Hoplophoneus)	780
bisulcatus (Geomys)	730	brachyops (Machærodus)	780
bisuleus (Myliobatis)	320	brachyops (Nimravus)	781
bisulcus (Triconodon)	567	brachyops (Pariotichus)	428
bitruncata (Palaeaspis)	340	brachyops (Pogonodon)	780
biturgidus (Polydectes)	514	Brachypsalis	768
blackburnii (Sardinia)	391	brachyptera (Amphiplaga)	403
blakei (Echinorhinus)	315	brachypternus (Phenacodus)	604
Blarina	738	brachypus (Canis)	775
Blastomeryx	682	brachyrhinus (Toxochelys)	442
Boaidæ	479	brachyrhynchus (Anceodon)	653
Boavus	479	brachyrhynchus (Anceodus)	653
Boidæ	479	brachyrhynchus (Hyopotamus)	653
Boidea	681	Brachyrophus	506
Bolbodon	427	Brachysaurus	471
Bolodon	557	brachyspondylus (Basilosaurus)	586
Bolodontidæ	557	brachyspondylus (Zeuglodon)	586, 587
Bolodontida	557	brachystomus (Mioclenus)	649
Bolosauridæ	434	brachystomus (Pantolestes)	649
Bolosaurus	428, 434	brachystomus (Trigonolestes)	649
bombifrons (Boötherium)	687	Bradytheria	575
bombifrons (Bos)	687, 688	brainerdi (Gonatodus)	365
bombifrons (Deinictis)	779	brainerdi (Palæoniscum)	365
bombifrons (Dinictis)	779	Branchiosauria	410
bombifrons (Ovibos)	687, 688	Branchiosauridæ	410
bonasus (Bos)	689	Branchiosaurus	410
Boöcherus	654, 655	Branta	530
boöps (Balæna)	600	braunli (Ischypterus)	375
boöps (Helaletes)	625, 626	braunli (Semionotus)	375
boöps (Hyrachyus)	625	bretonensis (Psammodus)	362
boöps (Megaptera)	600	breviarus (Alburnops)	396
Boötherium	687	brevicalcarata (Sinopa)	752
boreale (Telmatherium)	631	brevicalcaratus (Stypolophus)	752
boreale (Telmatotherium)	631	brevicolcarabus (Stypolophus)	752
borealis (Bathygnathus)	491	breviceps (Hadrosaurus)	503
borealis (Blastomeryx)	682	breviceps (Hyomeryx)	665
borealis (Palæosyops)	631	breviceps (Trachodon)	503
borealis (Rhytina)	584	brevicollis (Champsosaurus)	461
Borophagus	776	brevicollis (Crocodylus)	512
Bos	687, 688, 689, 690	brevicostatus (Molgophis)	412
boscas (Anas)	529	brevidens (Anchippus)	615
boschas (Anas)	529	brevidens (Glyptosaurus)	475
Bothremydidæ	438	brevidens (Mammut)	710
Bothremys	438	brevidens (Mastodon)	710
Bothriodon	652	brevidens (Tetrabelodon)	710
Bothriolepididæ	342	brevidens (Trilophodon)	710
Bothriolepis	343, 361	brevifacies (Cyclopidius)	670
Bothriobatis	656, 658, 659	brevifacies (Pitheciastes)	670
Botlosaurus	513, 514, 515	brevifemur (Plesiosaurus)	456
Bovidæ	686	brevior (Otolithus)	409
Bovinae	688	brevipinne (Amyzon)	395

	Page.		Page.
brevirostris (Miacid)	760	bursarius (Mus)	730
brevirostris (Tomarectus)	775	bursarius (Pseudostoma)	730
brevirostris (Tuditanus)	415	butleri (Ctenacanthus)	327
brevirostris (Uintacyon)	760	bysimus (Axestus)	455
brevis (Boavus)	479	bysinus (Axestemys)	455
brevis (Climaxodus)	276	bysinus (Axestus)	455
brevis (Janassa)	276	Bythiacanthus	331
brevis (Meniscosus)	560		
brevis (Selenacodon)	560		
brevis (Titanichthys)	348		
brevispinis (Holope)	516		
brevispinis (Thoracosaurus)	516		
brevitrabalis (Alces)	685		
breviusculus (Selenichnus)	551		
Brimosaurus	458, 459		
broadheadi (Daptinus)	386		
broadheadi (Saurocephalus)	386		
broadheadi (Saurodon)	386		
Brontichthys	348		
Brontops	634, 635		
brontops (Testudo)	451		
Brontosaurus	485, 486		
Brontotheriidae	629		
Brontotheriinae	633		
Brontotherioidea	629		
Brontotherium	634, 636, 637		
Brontozoum	539, 543, 545, 550		
browni (Elonichthys)	368		
brownie (Sagenodus)	354		
brownianum (Lambdotherium)	631		
brownii (Cœlodus)	373		
brownii (Palæoniscus)	368		
brumbyi (Amphoroesteus)	465		
brumbyi (Liodon)	465		
brumbyi (Mosasaurus)	465, 472		
Bruta	571		
Bryactinus	325		
Bubalus	637		
Bubo	536		
buccatus (Paramys)	723		
buccatus (Tretulias)	600		
buccatus (Plesiartomys)	723		
bucco (Brontotherium)	634		
bucco (Symborodon)	634, 637		
bucco (Titanotherium)	634, 637		
bucculentus (Mioclenus)	746		
bucculentus (Tricentes)	746		
buceros (Belodon)	510		
buceros (Phytosaurus)	510		
bucklandi (Tetracaulodon)	709		
bueli (Trionyx)	453		
bulbivorus (Thomomys)	730		
bulbivorus (Tomomys)	730		
bullatus (Cosmacanthus)	330		
bullatus (Eporeodon)	665		
bullatus (Geisacanthus)	330		
bullatus (Ictops)	739		
bullatus (Merycoidodon)	665		
bullatus (Oreodon)	665, 667		
Bunelurus	767		
Bunomeryx	650, 672		
Bunotheria	743		
Bunotheriidae	743		
burlingtonensis (Ctenacanthus)	327		
burneisti (Esthonyx)	715		
bursarius (Geomys)	730		
		C.	
		caballus (Equus)	622, 623
		cælatas (Psammodus)	284
		Cænobasileus	707, 708
		Cænopus	643
		cairnsii (Palæoniscus)	367
		cairnsii (Rhadinichthys)	367
		Calamagras	480
		calamarium (Hipparion)	619
		calamarium (Hippotherium)	619
		calamarius (Stylionus)	619
		calamarius (Diclonius)	503
		calamarius (Trachodon)	508
		Calamodon	574, 575
		Calamodontide	575
		calcarata (Leptauchenia)	674
		calcaratus (Leiodus)	296
		calcaratus (Felis)	782
		calcaratus (Hypertragulus)	674, 675
		calcaratus (Liodus)	296
		calcaratus (Liodus)	296
		calceolata (Euprotogonia)	603
		calceolata (Protogonia)	603
		calceolatus (Phenacodus)	603
		calceolus (Lambdodus)	270
		calceolus (Ptyctodus)	322
		calceolus (Rhynchodus)	322
		calceolus (Rinodus)	322
		calculus (Ptyctodon)	625
		calculus (Lophiodon)	625
		calculus (Pachynolophus)	625
		Calenys	449
		calicornis (Triceratops)	496
		californica (Auchenia)	679
		californicus (Bison)	699
		californicus (Camelops)	679
		californicus (Colymbus)	523
		californicus (Holomeniscus)	679
		californicus (Larus)	525
		californicus (Podiceps)	525
		californis (Triceratops)	493
		calliodon (Enchodus)	339
		Callognathus	338
		Calopodus	281
		Calops	673
		Calopus	549
		calvertensis (Delphinus)	590
		calvertensis (Lophocetus)	590
		calvertensis (Pontoporia)	590
		calvini (Dipterus)	351
		calvus (Rhineastes)	382
		calycinus (Sciurus)	719
		Camarasauridae	484
		Camarasaurus	485, 486
		Camelidae	673
		Camelina	662
		Cameline	680
		Cameloidea	662

	Page.
cameloides (Gomphotherium)	676
cameloides (Ithygrammodon)	674
cameloides (Protomeryx)	676
Camelomeryx	672
Camelops	679
Camelus	680
campbelltonensis (Cephalaspis)	341
campester (Mastodon)	710
campester (Tetrabelodon)	710
campester (Tetralophodon)	710
campestre (Mammut)	710
Campodus	296, 297
Camptomus	562
Camptonotidae	501
Camptonotus	501
Camptosauridae	501
Camptosaurus	501
canadense (Harpagomotherium)	708
canadensis (Anser)	530
canadensis (Bernicla)	530
canadensis (Bothriolepis)	343
canadensis (Branta)	530
canadensis (Castor)	721
canadensis (Cervus)	685
canadensis (Cheirolepis)	366
canadensis (Cocosteus)	344
canadensis (Dinichthys)	346
canadensis (Elaphus)	635
canadensis (Felis)	788
canadensis (Lutra)	769
canadensis (Ponerichthys)	346
canadensis (Pterichthys)	343
canavus (Miacid)	760
canavus (Uintacyon)	760
cancellatus (Ameiurus)	383
caniculus (Isaxis)	739
caniculus (Mesodectes)	739
Canidae	759, 769
Canimartes	774
Caninae	770
Canini	770
caninus (Homocamelus)	678
caninus (Pachyrhizodus)	387
Canis	767, 771, 772, 773, 774, 775
cannaliratus (Ctenacanthus)	327
caperatus (Meniscoessus)	561
caperatus (Triplodon)	561
Caprine	687
Captorhinus	429
Carangidae	403
carbonarius (Helodus)	286
carbonarius (Orthopleurodes)	289
carbonarius (Pecelodus)	293
carbonarius (Polyrhizodus)	282
carbonarius (Sandalodus)	289
carbonarius (Vaticinodus)	290
Carchariae	310, 312
Carcharias	301, 307, 308, 312, 313
carcharias (Carcharias)	308
carcharias (Carcharodon)	306
carcharias (Squalus)	308
Carcharidae	301, 310
Carcharina	311, 312
Carcharinae	301
Carcharininae	312
Carcharhinus	312

	Page.
Carcharodon	307, 309
Carcharodontinae	307
Carcharopsis	271
Carcinodon	762
Cardiodontidae	482
Cariacus	684
caribou (Rangifer)	686
carinata (Sphyræna)	339
Carinatus	523
carinatus (Cimolichthys)	389
carinatus (Cladodus)	268, 268
carinatus (Enchodus)	389
carinatus (Orodus)	295
carinatus (Phaeganodus)	389
carinatus (Physonemus)	333
carinidens (Peryptichus)	693
carinicolis (Crematosaurus)	477
carlosus (Trionyx)	453
carnifex (Dissacus)	749
Carnivora	743
Carnivora primitiva	744
Carnivora vera	762
caroline (Amblypterus)	365
carolinensis (Anas)	529
carolinensis (Belodon)	510
carolinensis (Clepsisaurus)	510
carolinensis (Dasyatis)	319
carolinensis (Dinoziphis)	596
carolinensis (Hoplocetus)	595, 596
carolinensis (Mosasaurus)	465
carolinensis (Nummopalatus)	401
carolinensis (Odax)	401
carolinensis (Palæosaurus)	510
carolinensis (Pharyngodopilus)	401
carolinensis (Physeter)	595, 596
carolinensis (Phytosaurus)	510
carolinensis (Pycnodus)	373
carolinensis (Querquedula)	529
carolinensis (Rhytidodon)	510
carolinensis (Rutiodon)	510
carolinensis (Trygon)	319
carteri (Emys)	450
carteri (Omomys)	788
Caryoderma	451
castilli (Merychippus)	616
castilli (Protophippus)	616
Castor	721, 722, 729, 733
Castoridae	721
castoridens (Trogosus)	717
Castorini	721
Castoroides	733
Castoroididae	733
CatapRACTI	406
Catapleura	441
Catarhactes	524
Catathlæus	693
Catarractes	584
catenatus (Platomenus)	453
Cathartes	535
Cathartidae	535
Cathartides	535
catocopsis (Hoplophoneus)	778
catocopsis (Machærodus)	778
catocopsis (Machairodus)	778
Catodon	595
catodon (Beluga)	594

	Page.		Page.
Catodontidae.....	595	Ceratopterina.....	321
Catopsalis.....	562, 563	Ceratopterinae.....	321
Catopteridae.....	370	Ceratorhina.....	647
Catopterus.....	351, 370	Ceratosauria.....	493
Catostomidae.....	394	Ceratosauroidea.....	498
Catostominae.....	394	Ceratosauros.....	493
Catostomus.....	394	Cercariomorphus.....	417
caudata (Helcura).....	546	Cercoleptidae.....	764
caudatum (Gigantitherium).....	545	Cercoleptinae.....	764
caudatum (Otozoum).....	547	cerebralis (Hoplophoneus).....	778
caudatus (Gigadipus).....	545	cerebralis (Machærodus).....	778
caudatus (Gigandipus).....	545	Cervales.....	685
caudatus (Nanomeryx).....	650	Cervicornia.....	681
caudatus (Nanopus).....	547	Cervidae.....	681, 686
caudatus (Tarsodactylus).....	552	Cervina.....	684
caudifer (Hylopus).....	546	Cervine.....	684
Caulodon.....	484	Cervulinae.....	682
cavatus (Allomys).....	718	Cervus.....	683, 684, 685, 686
cavatus (Hadrosaurus).....	503	Cestracion.....	299, 314
cavatus (Meniscomys).....	718	Cestracionidae.....	295
cavatus (Trachodon).....	508	Cestraciones.....	299
Cavicornia.....	681, 686	Cestraciontes.....	298, 299
cavifrons (Bootherium).....	687	cestrionensis (Pœclodius).....	298
cavifrons (Entoptychus).....	731	Cetacea.....	565
cavifrons (Ovibos).....	687	Cete.....	565
Cavia.....	734	Ceterhinops.....	590
Caviidae.....	734	cetiformis (Uronautes).....	457
cavirictus (Pantolambda).....	696	Cetiosauria.....	482
Cecomorphæ.....	523	Cetiosauridae.....	482, 484
cedrensis (Trimerodus).....	671	cetoides (Basilosaurus).....	567
celatus (Diadocodon).....	740	cetoides (Zeuglodon).....	537, 538
celer (Anchitherium).....	613	Cetomorpha.....	595
celer (Apatornis).....	520	Cetophis.....	593
celer (Colonomys).....	725	Cetotherium.....	598, 599
celer (Ichthyornis).....	520	chacensis (Pantolestes).....	649
celer (Laosaurus).....	501	chacensis (Trigonolestes).....	649
celer (Meleagris).....	584	Chænohyus.....	658, 669
celer (Meshippus).....	613	Cheropotamus.....	653
celer (Miohippus).....	613	Chetodipterus.....	400
celer (Protoceras).....	673	Chetodon.....	400
cellulosus (Trionyx).....	453	Chetodontidae.....	400
Cenoplacentalia.....	563	Chalicomys.....	722
cenopus (Merycocherus).....	668	Chalicotheria.....	690
Centemodon.....	509, 510	Chalicotheriida.....	690
Centetodon.....	740	Chalicotheriidae.....	690
Centracodon.....	740	Chalicotherioidea.....	690
Centrobati.....	317	Chalicotherium.....	579, 691
Centrobatiidae.....	317	Chameleo.....	478
Cephalaspidae.....	340	Chamæleon.....	478
Cephalaspides.....	340	Chamæleonidae.....	478
Cephalaspis.....	339, 341	Chamæleontes.....	478
Cephaloptere.....	321	chamense (Meniscotherium).....	605
Cephalotropus.....	598	chamensis (Alligator).....	512
cephalum (Cetotherium).....	599	chamensis (Crocodylus).....	512
cephalus (Eschrichtius).....	599	Chamops.....	474
Ceraterpeton.....	414	Champsodelphis.....	590
Ceraterpetum.....	414	Champsosauridae.....	460
ceratocephalus (Eurinotus).....	376	Champsosaurus.....	457, 460
Ceratodontia.....	355	chapmani (Mammut).....	710
Ceratodontidae.....	355	chapmani (Mastodon).....	710
Ceratodus.....	354, 355	Characodus.....	526
Ceratops.....	498, 500	Charadriidae.....	526
Ceratopsia.....	497	Charadriiformes.....	523, 526
Ceratopsidae.....	498	Charadriomorphæ.....	526
Ceratopsoides.....	497	Charadriornithes.....	526
Ceratoptera.....	321	Charadrius.....	526

	Page		Page.
<i>Cheiracanthus</i>	274	<i>Chriacidae</i>	744
<i>cheiriformis</i> (<i>Stemmatias</i>)	298	<i>Chriacus</i>	744, 745, 746, 762
<i>cheiriformis</i> (<i>Stemmatodus</i>)	298	<i>Chroicocephalus</i>	525
<i>Cheirodus</i>	369	<i>chromis</i> (<i>Pogonias</i>)	406
<i>Cheirolepis</i>	366	<i>chrysodon</i> (<i>Gymnoptychus</i>)	725
<i>Cheirotherium</i>	542	<i>chbollensis</i> (<i>Emys</i>)	447
<i>Cheirotheroides</i>	541	<i>ciceronius</i> (<i>Ectosteorhachis</i>)	362
<i>Chelichnus</i>	542	<i>ciceronius</i> (<i>Megalichthys</i>)	362
<i>Chelidridæ</i>	446	<i>ciceronius</i> (<i>Parabatrachus</i>)	362
<i>Chelone</i>	441, 442, 443	<i>Ciconiiformes</i>	528
<i>Chelonemydidae</i>	440	<i>clmarronis</i> (<i>Tetrabelodon</i>)	712
<i>Chelonia</i> (genus)	443	<i>Cimolestes</i>	566
<i>Chelonia</i> (order)	434	<i>Cimolestidae</i>	565
<i>Cheloniadae</i>	443	<i>Cimoliasaurus</i>	457, 458, 459
<i>Cheloniidae</i>	440, 443	<i>Cimolichthys</i>	386, 387, 389, 390
<i>Chelonoides</i>	443	<i>Cimollosaurus</i>	458
<i>Chelonoides</i>	542	<i>Cimolodon</i>	559, 560
<i>chelonys</i> (<i>Mesoreodon</i>)	667	<i>Cimolodontidae</i>	558
<i>Chelydosauria</i>	429	<i>Cimolomys</i>	559
<i>Chelydra</i>	446	<i>Cimolomidae</i>	558
<i>chelydra</i> (<i>Merycochærus</i>)	668	<i>Cimolopteryx</i>	587
<i>Chelydridæ</i>	446	<i>cinctulus</i> (<i>Deltodus</i>)	292
<i>chelydrina</i> (<i>Catapleura</i>)	441	<i>cinctus</i> (<i>Coryphodon</i>)	698
<i>chelydrina</i> (<i>Osteopygis</i>)	441	<i>cinctus</i> (<i>Deltodus</i>)	292
<i>Chelydridæ</i>	446	<i>cinctus</i> (<i>Ectacodon</i>)	698
<i>Chelydroides</i>	446	<i>cinctus</i> (<i>Oligotomus</i>)	611
<i>chemungensis</i> (<i>Ctenacanthus</i>)	327	<i>cinctus</i> (<i>Orohippus</i>)	611
<i>Chen</i>	530	<i>cinctus</i> (<i>Pachynolophus</i>)	611
<i>Chenomorphæ</i>	528	<i>cinctus</i> (<i>Platolophus</i>)	611
<i>Chersidae</i>	449	<i>cinerearum</i> (<i>Clidastes</i>)	466
<i>Chersites</i>	449	<i>cinereoargentatus</i> (<i>Canis</i>)	775
<i>chesterensis</i> (<i>Chomatodus</i>)	280	<i>cinereoargentatus</i> (<i>Urocyon</i>)	775
<i>chesterensis</i> (<i>Physonemus</i>)	333	<i>cinereoargentatus</i> (<i>Vulpes</i>)	775
<i>chicopensis</i> (<i>Acetrophorus</i>)	374	<i>cingens</i> (<i>Hypsiodus</i>)	672
<i>Chilonyx</i>	427	<i>cingulatus</i> (<i>Deltodus</i>)	292
<i>Chilotæ</i>	452	<i>Cinodon</i>	504
<i>Chimæra</i>	324, 550	<i>Cinosternidae</i>	446
<i>Chimærae</i>	323	<i>Cionodon</i>	504
<i>Chimærichnus</i>	550	<i>circularis</i> (<i>Platysomus</i>)	369
<i>Chimæridæ</i>	323	<i>circulosus</i> (<i>Embaphias</i>)	459
<i>Chimæroidea</i>	322	<i>circumagens</i> (<i>Apatichnus</i>)	540
<i>Chimæroides</i>	322	<i>Cistuda</i>	449
<i>Chirocentridæ</i>	383	<i>Cistudinidae</i>	447
<i>Chirodus</i>	369	<i>Cistudo</i>	449
<i>Chirogidae</i>	557	<i>clackmannensis</i> (<i>Ichthyolithus</i>)	362
<i>Chirolepis</i>	366	<i>Cladacanthus</i>	335, 336
<i>Chiroptera</i>	741	<i>Cladocyclus</i>	398
<i>Chirotherium</i>	542	<i>Cladodontidae</i>	267
<i>Chirox</i>	557	<i>Cladodus</i>	267, 272
<i>chirurgus</i> (<i>Pelecopterus</i>)	379	<i>Cladoselache</i>	272
<i>chirurgus</i> (<i>Protosphyrena</i>)	379	<i>Cladoselachidae</i>	272
<i>Chisternon</i>	437, 438	<i>Clænodon</i>	747
<i>Chitnodus</i>	293	<i>Clangula</i>	530
<i>Chlamydothierium</i>	581	<i>Claothynechus</i>	500
<i>Chlamytherium</i>	581	<i>Clasauridae</i>	502
<i>Cholodus</i>	277	<i>Clasaurus</i>	502, 503
<i>Chomatodus</i>	276, 277, 279, 286, 287	<i>clarkensis</i> (<i>Hybodus</i>)	299
<i>Chondroganoides</i>	365	<i>clarki</i> (<i>Brontichthys</i>)	348
<i>Chondropterygii</i>	262	<i>clarki</i> (<i>Cladodus</i>)	272
<i>Chondrostei</i>	365	<i>clarki</i> (<i>Cladoselache</i>)	272
<i>Chondrosteus</i>	371	<i>clarki</i> (<i>Dinichthys</i>)	346, 347
<i>Chonespondylus</i>	463	<i>clarki</i> (<i>Gorgonichthys</i>)	346
<i>Choneziphilus</i>	596, 597	<i>clarki</i> (<i>Monocladodus</i>)	272
<i>chonops</i> (<i>Choneziphilus</i>)	597	<i>clarki</i> (<i>Palamopus</i>)	544
<i>chonops</i> (<i>Proroziphilus</i>)	597	<i>clarki</i> (<i>Ponerichthys</i>)	347
<i>Chorotherium</i>	664	<i>clarki</i> (<i>Titanichthys</i>)	348

	Page.		Page.
clarkianus (Siphonocetus)	599	Cœlogenys	734
clarkii (Actinophorus)	368	Cœlophysis	493
clarkii (Ctenacanthus)	327	cœlops (Choneziphius)	596
clarkii (Tegeolepis)	368	cœlops (Eboroziphius)	596
clarkii (Trachosteus)	348	Cœlorhynchus	331
Clastes	376	Cœlosaurus	488, 489
clausa (Terrapene)	449	cœlospondylus (Ixacanthus)	592
clavata (Lamna)	802	Cœlosteus	361
clavata (Aspidichthys)	345	Cœluria	492
clavatus (Pleuroptyx)	417	Cœluridæ	492
claviger (Naosaurus)	432	Cœlurus	493
clavirostris (Crocodilus)	515	Cœndidæ	732
clavirostris (Gavialis)	515	Cœnopaïæ	642
clavirostris (Sphenosaurus)	515	cœnopus (Merycochærus)	668
clavis (Crocodylus)	512	cognatus (Anchitherium)	617
clavum (Elotherium)	655	cognatus (Parahippus)	617
clavus (Entelodon)	655	colcodus (Pantylus)	429
claybornensis (Otolithus)	408	colletti (Orodus)	286
claypolei (Cladodus)	268	colletti (Clepsydrops)	431
Clemmys	449	Collettosaurus	542
Clepsidra	492, 510	collinsi (Mastodon)	709
Clepsydropida	431	collinsi (Tetracaulodon)	709
Clepsydrus	431, 432	Colodon	626
Clepsysaurus	492	Colonoceras	639
Clidastes	466, 470	Colodontina	624
Clidastidæ	464	Colonosaurus	519, 520
clidastoides (Lestosaurus)	469	Colonymys	725
clidastoides (Platycarpus)	469	Colophonodon	588, 589
Climatus	274, 329	coloradense (Titanotherium)	633
Climaxodus	275, 276	coloradoensis (Megacerops)	633
Clinodactyla	607, 648	coloradoensis (Megaceratops)	633
clintonensis (Onchus)	326	coloradoensis (Menodus)	633, 636, 637
clintoni (Onchus)	326	coloradoensis (Oreodon)	666
Cliola	396	coloradoensis (Platyrhachis)	477
clivosa (Priscacara)	401	Coloreodon	662, 663, 664
cloacina (Anaplogonia)	728	Colosteidæ	419
cloacinum (Syelum)	728	Colosteus	414, 419
cloacinus (Erethizon)	733	Colotaxis	735
Clupacei	390	Coluber	480
Clupea	391, 392	Colubridæ	480
Clupeidæ	390	Colubrina	480
Clupeinæ	390	columbi (Elephas)	713
Clupeoidæ	390	columbi (Euelephas)	713
cluius (Thomomys)	730	columbianus (Pediocetes)	534
clypeata (Anas)	529	columbiensis (Holcodus)	469
clypeata (Spatula)	529	colurus (Anchisaurus)	491
coalescens (Plastomenus)	454	Colymbi	523
coalescens (Trionyx)	454	Colymbidæ	523
coarctatum (Elotherium)	655	Colymbides	523
coarctatus (Periplychus)	693	Colymbiformes	523
Colitidæ	394	Colymboidæ	523
coccinarum (Tyrpothorax)	511	Colymbus	523
Coccosteidæ	344, 345	comes (Otolithus)	409
Coccosteina	344	comma (Conoryctes)	573
Cocosteus	342, 344, 345	commune (Amyzon)	396
Cochliodontidæ	286	communis (Plastomenus)	452
Cochliodus	289, 292, 293, 294	compactus (Ctenoptychius)	238
Cocytinidæ	415	compactus (Harpacodus)	282
Cocytinus	416	compactus (Stemmatias)	298
Cœlacanthi	363	compactus (Stemmatodus)	298
Cœlacanthidæ	363	complanatus (Deltodus)	292
Cœlacanthini	363	complanatus (Sandalodus)	298
Cœlacanthus	363	complicatus (Equis)	622
cœlatus (Meniscoœsus)	561	Composaurus	510
cœlatus (Tripliodon)	561	compressa (Lamna)	306
Cœlodus	373	compressus (Ælurodon)	774

	Page.
compressus (Ctenacanthus)	327
compressus (Diacranodus)	265
compressus (Dicotyles)	660
compressus (Didymodus)	265
compressus (Diplodus)	265, 266
compressus (Dissodus)	266
compressus (Dittodus)	266
compressus (Elliptodon)	473
compressus (Gyracanthus)	335
compressus (Helodus)	271, 287
compressus (Hybocladodus)	271, 287
compressus (Periplectrodus)	287
compressus (Platygonus)	660
compressus (Pleuracanthus)	265
compressus (Pyctodus)	323
compressus (Stethacanthus)	333
Compsacanthus	265
Compsemys	437, 445
Compsosaurus	509
comstocki (Didelphis)	571
comstocki (Didelphys)	571
comstocki (Peratherium)	571
comstockianum (Peratherium)	571
Comptichnus	542
comptus (Chomatodus)	280
comptus (Didelphodon)	566
comptus (Didelphops)	566
comptus (Entomodon)	740
comptus (Protoceras)	673
comptus (Pteranodon)	507
Conacodon	695
conangulus (Trimerorhachis)	420
concamerata (Platypterna)	549
concameratus (Harpedactylus)	549
concavus (Dactylodus)	282
concavus (Polyrhizodus)	282
concentrica (Gephyura)	398
concentricus (Trionyx)	454
conchigerus (Zatrachys)	422
conchilepis (Sagenodus)	354
Conchiopsis	363, 364
conchiopsis (Sagenodus)	354
Conchodus	352
concinus (Acanthodes)	273
concinus (Acanthoëssus)	273
concinus (Cladodus)	268
concolor (Felis)	782
condoni (Anchitherium)	613
condoni (Anser)	530
condoni (Dicotyles)	660
condoni (Miohippus)	613
condoni (Palæocherus)	658
condoni (Platygonus)	660
condonians (Leucus)	395
condonians (Rutilus)	395
Condylarthra	601
confertus (Nimravus)	781
congrois (Liodon)	472
congrois (Tylosaurus)	472
Conicodon	574
coniculus (Helodus)	286
conidens (Diacodon)	749
conidens (Eschatius)	680
conidens (Mioclenus)	749
conidens (Protatoga)	401
conidens (Tatoga)	401

	Page.
condens (Trisiodon)	748
coniferus (Anisonchus)	695, 696
coniger (Cladodus)	268
Coniophis	481
Coniornis	522
Conodectes	430
conodon (Clidastes)	467
Conoryctes	573, 694, 748
Conoryctidae	572
Conosaurops	588
Conosaurus	388
conquistus (Meniscoëssus)	560, 561
conradi (Belosphyra)	592
conradi (Delphinus)	592
conradi (Ixacanthus)	592
conradi (Priscodelphinus)	592
conradi (Puffinus)	526
consimilis (Oracanthus)	555
consolidatus (Helodus)	286
consors (Calops)	673
consors (Laosaurus)	501
constablei (Protocatostomus)	394
contortidens (Carcharias)	301
contortidens (Carcharodon)	308
contortidens (Lamna)	301
contortidens (Odontaspis)	301
contortus (Galeocerdo)	311
contracta (Empo)	387
contractus (Anogmus)	393
contractus (Cimolichthys)	387
contractus (Pachyrhizodus)	393
contraversus (Dipterus)	351
contusor (Thecachamps)	512
conulus (Oracodon)	562
conversidens (Equus)	623
convexus (Deltodopsis)	291
convexus (Orthopleurodus)	289
convexus (Sandalodus)	289
convolutus (Aspidodus)	288
convolutus (Deltodopsis)	291
convolutus (Pœclodus)	298
cookii (Bothremys)	438
cookii (Leptomylus)	325
copeanus (Mosasaurus)	465
copeanus (Myllobatis)	320
copeanus (Sagenodus)	354
copel (Aceratherium)	643
copel (Cænopus)	643
copel (Hybodus)	299
copel (Mesohippus)	614
copel (Miohippus)	614
copel (Phœnicopterus)	531
copel (Trichophanes)	404
cophater (Anisonchus)	695
cophater (Conacodon)	695
cophater (Haploconus)	695
Copodus	285
cor (Otolithus)	408
Coracomorphæ	537
Coracornithes	557
Corax	309, 311
cordatus (Gyracanthus)	335
cordatus (Holops)	516
cordatus (Pantylus)	429
corniculatus (Haploconus)	694
cornubicus (Squalus)	304

	Page.		Page.
cornutidens (<i>Orycterocetus</i>)	595, 596	couperi (<i>Mosasaurus</i>)	445
cornutidens (<i>Physeter</i>)	595	coxanus (<i>Helodus</i>)	593
cornutum (<i>Telmatotherium</i>)	632	coxianus (<i>Ctenacanthus</i>)	327
cornutum (<i>Tinocerus</i>)	704	crampianus (<i>Bison</i>)	628
cornutum (<i>Tintatherium</i>)	704	crampianus (<i>Bos</i>)	638
cornutus (<i>Dolichorhinus</i>)	632	<i>Craspedotl.</i>	436
cornutus (<i>Eobasilus</i>)	704	<i>craspedotum</i> (<i>Hyracotherium</i>)	609
cornutus (<i>Loxolophodon</i>)	704	<i>craspedotus</i> (<i>Eohippus</i>)	609
coronatus (<i>Cephalotropus</i>)	598	<i>crassa</i> (<i>Chelydra</i>)	446
corrugata (<i>Eurylepis</i>)	366	<i>crassa</i> (<i>Lamna</i>)	304
corrugata (<i>Haplolepis</i>)	366	<i>crassa</i> (<i>Oxyrhina</i>)	305
corrugata (<i>Mecolepis</i>)	366	<i>crassangulum</i> (<i>Cetotherium</i>)	599
corrugatus (<i>Agassizodus</i>)	296	<i>crassartus</i> (<i>Lestoesaurus</i>)	470
corrugatus (<i>Campodus</i>)	296	<i>crassartus</i> (<i>Liodon</i>)	470
corrugatus (<i>Clænodon</i>)	747	<i>crassartus</i> (<i>Platycarpus</i>)	470
corrugatus (<i>Dinichthys</i>)	343	<i>crassicauda</i> (<i>Hypsibema</i>)	497
corrugatus (<i>Miocælanus</i>)	746	<i>crassicolliidens</i> (<i>Tricentes</i>)	746
corrugatus (<i>Orodus</i>)	296	<i>crassicornis</i> (<i>Allopes</i>)	634
corrugatus (<i>Oxycælanus</i>)	746	<i>crassicornis</i> (<i>Bison</i>)	639
corrugatus (<i>Plastomenus</i>)	452	<i>crassicornis</i> (<i>Bos</i>)	639
corrugatus (<i>Stenognathus</i>)	348	<i>crassicornis</i> (<i>Megacerops</i>)	634
corsoni (<i>Hadrianus</i>)	450	<i>crassiscuspis</i> (<i>Conoryctes</i>)	748
corsoni (<i>Testudo</i>)	450	<i>crassiscuspis</i> (<i>Miocælanus</i>)	748
corsoni (<i>Pappichthys</i>)	381	<i>crassiscuspis</i> (<i>Sarcotheraustes</i>)	748
Corvidæ	537	<i>crassiscuspis</i> (<i>Zetodon</i>)	748
Corvipes	542	<i>crassidens</i> (<i>Carcharodon</i>)	307, 308
Corvus	537	<i>crassidens</i> (<i>Galeocerdo</i>)	311
coryphæus (<i>Edestosaurus</i>)	469	<i>crassidens</i> (<i>Hoplophoneus</i>)	778
coryphæus (<i>Helocodus</i>)	469	<i>crassidens</i> (<i>Hyrachyus</i>)	639
coryphæus (<i>Hypotemnodon</i>)	773	<i>crassidens</i> (<i>Lamna</i>)	302
coryphæus (<i>Lestosaurus</i>)	469	<i>crassidens</i> (<i>Machærodus</i>)	773
coryphæus (<i>Mesocyon</i>)	773	<i>crassidens</i> (<i>Mosasaurus</i>)	465
coryphæus (<i>Platycarpus</i>)	469	<i>crassidens</i> (<i>Odontaspis</i>)	302
coryphæus (<i>Sarcotheraustes</i>)	743	<i>crassidens</i> (<i>Psammodus</i>)	264
coryphæus (<i>Temnocyon</i>)	773	<i>crassidiscus</i> (<i>Cricotus</i>)	421
Coryphodon	697	<i>crassifrons</i> (<i>Loxolophodon</i>)	704
Coryphodontia	696	<i>crassifrons</i> (<i>Tinoceras</i>)	704
Coryphodontiæ	697	<i>crassigenis</i> (<i>Domnina</i>)	741
Cosmacanthus	330	<i>crassigenis</i> (<i>Miothen</i>)	741
Cosorycline	632	<i>crassipes</i> (<i>Hesperornis</i>)	521
Cosoryx	632, 633	<i>crassipes</i> (<i>Lestornis</i>)	521
costatus (<i>Chomatodus</i>)	290	<i>crassiramus</i> (<i>Entoptychus</i>)	731
costatus (<i>Cladodus</i>)	268	<i>crassiscutata</i> (<i>Testudo</i>)	445, 451
costatus (<i>Cochliodus</i>)	294	<i>crassiscutatus</i> (<i>Colosteus</i>)	419
costatus (<i>Ctenacanthus</i>)	329	<i>crassispinus</i> (<i>Diplacanthus</i>)	274
costatus (<i>Dicotyles</i>)	660	<i>crassissimus</i> (<i>Diplacanthus</i>)	274
costatus (<i>Dipterus</i>)	351	<i>crassiusculus</i> (<i>Mixodectes</i>)	786
costatus (<i>Eunemecanthus</i>)	329	<i>crassivultus</i> (<i>Icticyon</i>)	770
costatus (<i>Lambdodus</i>)	271	<i>crassivultus</i> (<i>Oligobunus</i>)	770
costatus (<i>Palæoscincus</i>)	497	<i>Crassopholis</i>	572
costatus (<i>Plastomenus</i>)	452	<i>crassum</i> (<i>Aceratherium</i>)	645
costellatus (<i>Chelracanthus</i>)	274	<i>crassum</i> (<i>Diceratherium</i>)	645
costellatus (<i>Ctenacanthus</i>)	274	<i>crassum</i> (<i>Elotherium</i>)	655
costellatus (<i>Sphenacanthus</i>)	274	<i>crassus</i> (<i>Antiacodon</i>)	793
costelliferus (<i>Desmodus</i>)	297	<i>crassus</i> (<i>Apatichnus</i>)	540
costilatus (<i>Baptmys</i>)	445	<i>crassus</i> (<i>Aphelops</i>)	645
costilatus (<i>Dermatemyx</i>)	445	<i>crassus</i> (<i>Cochliodus</i>)	236
Cottidæ	406	<i>crassus</i> (<i>Dryptodon</i>)	575
Cottina	406	<i>crassus</i> (<i>Ennacodon</i>)	568
Cottus	406, 407	<i>crassus</i> (<i>Enneodon</i>)	568
Cottoldea	406	<i>crassus</i> (<i>Entelodon</i>)	653
Cotylopidæ	662, 665	<i>crassus</i> (<i>Harpedactylus</i>)	545
Cotylopinæ	665	<i>crassus</i> (<i>Isurus</i>)	305
Cotylops	665, 666	<i>crassus</i> (<i>Lestophis</i>)	480
Cotylocauria	426	<i>crassus</i> (<i>Limnophis</i>)	480
couperi (<i>Chelonja</i>)	445	<i>crassus</i> (<i>Monoclonius</i>)	499

	Page.		Page.
crassus (Otodus).....	304	cruciger (Dimetrodon).....	432
crassus (Palæomytus).....	323	cruciger (Naosaurus).....	432
crassus (Pelonax).....	655	Crucipes.....	542
crassus (Priconodon).....	496	cruentus (Hyænodon).....	758
crassus (Protosorex).....	738	cruentus (Ichthyodectes).....	385
crassus (Rhinoscerus).....	645, 646	Cryptodira.....	439
crassus (Rhynchodus).....	525	cryptotremus (Cottus).....	406
crassus (Sandalodus).....	289	Ctenacanthus.....	274, 296, 326, 329, 330
crassus (Sarcolemur).....	793	Ctenacodon.....	558
crassus (Telmalestes).....	793	Ctenerpeton.....	415
crassus (Telmatolestes).....	793	Ctenodipneusta.....	351
crassus (Thinosaurus).....	476	Ctenodipteridæ.....	351
Creccoides.....	528	Ctenodipterini.....	351
Creccoides.....	528	ctenodon (Ichthyodectes).....	385
Crematosaurus.....	477	Ctenodontidæ.....	353
crendens (Anchippus).....	615	Ctenodus.....	351, 352, 353, 354, 355
crendens (Anchitherium).....	615	Ctenolabridæ.....	401
crendens (Desmatippus).....	615	Ctenopetalus.....	281
crendens (Equus).....	623	Ctenoptychilus.....	281, 282, 283, 337
crenulatus (Aspidodus).....	288	cubitalis (Triplopus).....	640
crenulatus (Helodus).....	296	cucullatus (Lophodytes).....	529
crenulatus (Hemipristis).....	313	cucullatus (Mergus).....	529
crenulatus (Psephodus).....	288	cucullus (Antiodus).....	279
Creodonta.....	743	cucullus (Petalodus).....	279
Creosaurus.....	489	culbertsonii (Anomæpus).....	539
Cricetl.....	726	culbertsonii (Emys).....	450
Cricetidae.....	726	culbertsonii (Merycoidodon).....	666
Cricetinae.....	726	culbertsonii (Oreodon).....	665, 666, 667
Cricetus.....	726	culbertsonii (Ornithichnites).....	539
Cricotidæ.....	420	culbertsonii (Stylemys).....	450
Cricotus.....	420	culbertsonii (Testudo).....	450
crispatus (Syllomus).....	442	cultellus (Chomatodus).....	280
cristata (Cystophora).....	785	cultellus (Petalodus).....	280
cristata (Phoca).....	785	cultrata (Testudo).....	451
cristatum (Hyracotherium).....	609	cultridens (Leurocephalus).....	631
cristatus (Aublysodon).....	488	cultridens (Telmatherium).....	631
cristatus (Calope).....	673	cultridens (Telmatotherium).....	631
cristatus (Catostomus).....	394	cummingsæ (Cheirolepis).....	366
cristatus (Colotaxis).....	725	cumminsi (Acheloma).....	423
cristatus (Ctenoptychilus).....	282	cumminsi (Canimartes).....	774
cristatus (Deinodon).....	488	cumminsi (Equus).....	616
cristatus (Dryptosaurus).....	488	cumminsi (Merychippus).....	616
cristatus (Eohippus).....	609	cuneatus (Anchitherium).....	614
cristatus (Lelaps).....	488	cuneatus (Anomæpus).....	539
cristonense (Orotherium).....	610	cuneatus (Clastes).....	377
cristonense (Pliolophus).....	610	cuneatus (Grallator).....	545
cristonensis (Hyracotherium).....	610	cuneatus (Lepisosteus).....	377
cristonensis (Pachynolophus).....	610	cuneatus (Mesohippus).....	614
Crocodylia.....	508, 511	cuneatus (Miohippus).....	614
Crocodylidæ.....	511, 515	cuneatus (Ornithodichnites).....	543, 545
crocodylinus (Orycterocetus).....	595	cuneum (Dinoceras).....	703
Crocodylus.....	512, 515	Cunichnoides.....	543
Crocodylidæ.....	511	cunulatus (Psephodus).....	288
Crocodylus.....	512, 513	cupido (Cupidonia).....	534
crocota (Hyæna).....	783	Cupidonia.....	534
cromis (Labrus).....	405	cursorius (Grallator).....	545
cromis (Pogonias).....	405	curta (Scamnenacia).....	353
Crommyodus.....	405	curtidens (Didymictis).....	754
Crossopholis.....	372	curtidens (Viverravus).....	754
Crossopteri.....	357	curtidentata (Fritschia).....	413
Crossopterygia.....	357	curtidentatum (Hylæpeton).....	413
Crossopterygidæ.....	357	curtirostris (Lestosauros).....	470
Crotalidæ.....	480	curtirostris (Liodon).....	470
Crotalina.....	480	curtirostris (Platecarpus).....	470
Crotalus.....	481	curtum (Anthracotherium).....	652
crucians (Hyænodon).....	758	curtum (Brontotherium).....	634

	Page.		Page.
cornutidens (<i>Orycterocetus</i>)	595, 596	couperi (<i>Mosasaurus</i>)	465
cornutidens (<i>Physeter</i>)	595	coxanus (<i>Helodus</i>)	293
cornutum (<i>Telmatotherium</i>)	632	coxianus (<i>Ctenacanthus</i>)	327
cornutum (<i>Tinoceras</i>)	704	crampianus (<i>Bison</i>)	688
cornutum (<i>Uintatherium</i>)	704	crampianus (<i>Bos</i>)	688
cornutus (<i>Dolichorhinus</i>)	632	<i>Craspedoti</i>	456
cornutus (<i>Eobasilus</i>)	704	craspedotum (<i>Hyracotherium</i>)	609
cornutus (<i>Loxolophodon</i>)	704	craspedotus (<i>Eohippus</i>)	609
coronatus (<i>Cephalotropus</i>)	598	crassa (<i>Chelydra</i>)	446
corrugata (<i>Eurylepis</i>)	366	crassa (<i>Lamna</i>)	304
corrugata (<i>Haplolepis</i>)	366	crassa (<i>Oxyrhina</i>)	305
corrugata (<i>Mecolepis</i>)	366	crassangulum (<i>Cetotherium</i>)	589
corrugatus (<i>Agassizodus</i>)	296	crassartus (<i>Lestoeurus</i>)	470
corrugatus (<i>Campodus</i>)	296	crassartus (<i>Liodon</i>)	470
corrugatus (<i>Clanodon</i>)	747	crassartus (<i>Platecarpus</i>)	470
corrugatus (<i>Dinichthys</i>)	348	crassicauda (<i>Hypsilobema</i>)	497
corrugatus (<i>Mioclenus</i>)	746	crassicolldens (<i>Tricentes</i>)	746
corrugatus (<i>Orodus</i>)	296	crassicornis (<i>Allopes</i>)	634
corrugatus (<i>Oxyclenus</i>)	746	crassicornis (<i>Bison</i>)	639
corrugatus (<i>Plastomenus</i>)	462	crassicornis (<i>Bos</i>)	639
corrugatus (<i>Stenognathus</i>)	348	crassicornis (<i>Megacerops</i>)	634
corsoni (<i>Hadrianus</i>)	450	crassiscuspis (<i>Conoryctes</i>)	748
corsoni (<i>Testudo</i>)	450	crassiscuspis (<i>Mioclenus</i>)	748
corsonii (<i>Papichthys</i>)	381	crassiscuspis (<i>Sarcotrachytes</i>)	748
<i>Corvidæ</i>	587	crassiscuspis (<i>Zetodon</i>)	748
<i>Corvipes</i>	542	crassidens (<i>Carcharodon</i>)	307, 308
<i>Corvus</i>	537	crassidens (<i>Galeocerdo</i>)	311
coryphæus (<i>Edestosaurus</i>)	469	crassidens (<i>Hoplophonus</i>)	778
coryphæus (<i>Holodus</i>)	469	crassidens (<i>Hyrachyus</i>)	639
coryphæus (<i>Hypotemnodon</i>)	773	crassidens (<i>Lamna</i>)	302
coryphæus (<i>Lestoeurus</i>)	469	crassidens (<i>Machærodus</i>)	778
coryphæus (<i>Mesocyon</i>)	773	crassidens (<i>Mosasaurus</i>)	465
coryphæus (<i>Platecarpus</i>)	469	crassidens (<i>Odontaspis</i>)	302
coryphæus (<i>Sarcotrachytes</i>)	748	crassidens (<i>Psammodus</i>)	284
coryphæus (<i>Temnocyon</i>)	773	crassidiacus (<i>Cricotus</i>)	421
<i>Coryphodon</i>	697	crassifrons (<i>Loxolophodon</i>)	704
<i>Coryphodontia</i>	696	crassifrons (<i>Tinoceras</i>)	704
<i>Coryphodontiæ</i>	697	crassigenis (<i>Domnina</i>)	741
<i>Cosmacanthus</i>	330	crassigenis (<i>Miothen</i>)	741
<i>Cosorycinæ</i>	682	crassipes (<i>Hesperornis</i>)	521
<i>Cosoryx</i>	682, 683	crassipes (<i>Lestornis</i>)	521
costatus (<i>Chomatodus</i>)	280	crassiramus (<i>Entoptychus</i>)	731
costatus (<i>Cladodus</i>)	268	crassiscutata (<i>Testudo</i>)	448, 451
costatus (<i>Cochliodus</i>)	294	crassiscutatus (<i>Colosteus</i>)	419
costatus (<i>Ctenacanthus</i>)	329	crassispinus (<i>Diplacanthus</i>)	274
costatus (<i>Dicotyles</i>)	660	crassissimus (<i>Diplacanthus</i>)	274
costatus (<i>Dipterus</i>)	351	crassiusculus (<i>Mixodectes</i>)	786
costatus (<i>Eunemecanthus</i>)	329	crassivultus (<i>Ictiocyon</i>)	770
costatus (<i>Lambdodus</i>)	271	crassivultus (<i>Oligobunus</i>)	770
costatus (<i>Palæoscincus</i>)	497	<i>Crassopholis</i>	572
costatus (<i>Plastomenus</i>)	462	crassum (<i>Aceratherium</i>)	645
costellatus (<i>Chelracanthus</i>)	274	crassum (<i>Diceratherium</i>)	645
costellatus (<i>Ctenacanthus</i>)	274	crassum (<i>Elotherium</i>)	655
costellatus (<i>Sphenacanthus</i>)	274	crassus (<i>Antiacodon</i>)	793
costelliferus (<i>Desmodus</i>)	297	crassus (<i>Apatichnus</i>)	540
costilatus (<i>Baptemys</i>)	445	crassus (<i>Aphelops</i>)	645
costilatus (<i>Dermatemys</i>)	445	crassus (<i>Cochliodus</i>)	289
<i>Cottidæ</i>	406	crassus (<i>Dryptodon</i>)	575
<i>Cottina</i>	406	crassus (<i>Ennacodon</i>)	568
<i>Cottus</i>	406, 407	crassus (<i>Enneodon</i>)	568
<i>Cotolidae</i>	406	crassus (<i>Entelodon</i>)	635
<i>Cotylopidæ</i>	662, 665	crassus (<i>Harpedactylus</i>)	545
<i>Cotylopinæ</i>	665	crassus (<i>Isurus</i>)	306
<i>Cotylops</i>	665, 666	crassus (<i>Lestophis</i>)	480
<i>Cotylosauria</i>	426	crassus (<i>Limnophis</i>)	480
couperi (<i>Chelonina</i>)	445	crassus (<i>Monoclonius</i>)	499

	Page.		Page.
crassus (Otodus).....	304	cruciger (Dimetrodon).....	432
crassus (Palæomytus).....	323	cruciger (Naosaurus).....	432
crassus (Pelonax).....	655	Crucipes.....	542
crassus (Priconodon).....	496	cruentus (Hyænodon).....	758
crassus (Protosorex).....	738	cruentus (Ichthyodectes).....	385
crassus (Rhinosceros).....	645, 646	Cryptodira.....	439
crassus (Rhynchodus).....	323	cryptotremus (Cottus).....	406
crassus (Sandalodus).....	289	Ctenacanthus.....	374, 396, 326, 329, 330
crassus (Sarcolemur).....	793	Ctenacodon.....	558
crassus (Telmalestes).....	793	Ctenerpeton.....	415
crassus (Telmatolestes).....	793	Ctenodipneusta.....	351
crassus (Thinosaurus).....	476	Ctenodipteridæ.....	351
Creccoides.....	528	Ctenodipterini.....	351
Creccoides.....	528	ctenodon (Ichthyodectes).....	385
Cremastosauros.....	477	Ctenodontidæ.....	353
crendens (Anchippus).....	615	Ctenodus.....	351, 352, 353, 354, 355
crendens (Anchitherium).....	615	Ctenolabridæ.....	401
crendens (Desmatippus).....	615	Ctenopetalus.....	281
crendens (Equus).....	623	Ctenoptychius.....	281, 282, 283, 337
crenulatus (Aspidodus).....	288	cubitalis (Triplopus).....	640
crenulatus (Helodus).....	286	cucullatus (Lophodytes).....	529
crenulatus (Hemipristis).....	313	cucullatus (Mergus).....	529
crenulatus (Psephodus).....	288	cucullus (Antliodus).....	279
Creodonta.....	743	cucullus (Petalodus).....	279
Croesaurus.....	489	culbertsonii (Anomæpus).....	539
Cricetl.....	726	culbertsonii (Emys).....	450
Cricetidæ.....	726	culbertsonii (Merycododon).....	666
Cricetinae.....	726	culbertsonii (Oreodon).....	665, 666, 667
Cricetus.....	726	culbertsonii (Ornithichnites).....	539
Cricotidæ.....	420	culbertsonii (Stylemys).....	450
Cricotus.....	420	culbertsonii (Testudo).....	450
crispatus (Syllomus).....	442	cultellus (Chomatodus).....	280
cristata (Cystophora).....	785	cultellus (Petalodus).....	280
cristata (Phoca).....	785	cultata (Testudo).....	451
cristatum (Hyracotherium).....	609	cultridens (Leurocephalus).....	631
cristatus (Aublysodon).....	488	cultridens (Telmatherium).....	631
cristatus (Calope).....	673	cultridens (Telmatotherium).....	631
cristatus (Catostomus).....	394	cummingsæ (Cheirolepis).....	366
cristatus (Colotaxis).....	725	cumminsi (Acheloma).....	423
cristatus (Ctenoptychius).....	282	cumminsi (Canimartes).....	774
cristatus (Deinodon).....	488	cumminsi (Equus).....	616
cristatus (Dryptosaurus).....	488	cumminsi (Merychippus).....	616
cristatus (Eohippus).....	609	cuneatum (Anchitherium).....	614
cristatus (Lælaps).....	488	cuneatus (Anomæpus).....	539
cristonense (Orotherium).....	610	cuneatus (Clastes).....	377
cristonense (Pliolophus).....	610	cuneatus (Grallator).....	545
cristonensis (Hyracotherium).....	610	cuneatus (Lepisosteus).....	377
cristonensis (Pachynolophus).....	610	cuneatus (Meshippus).....	614
Crocodylia.....	508, 511	cuneatus (Miohippus).....	614
Crocodylidæ.....	511, 515	cuneatus (Ornithodichnites).....	545, 545
crocodylinus (Orycterocetus).....	595	cuneum (Dinoceras).....	703
Crocodylus.....	512, 515	Cunichnoides.....	543
Crocodylidæ.....	511	cunulatus (Psephodus).....	288
Crocodylus.....	512, 513	cupido (Cupidonia).....	534
crocota (Hyæna).....	783	Cupidonia.....	534
cromis (Labrus).....	405	cursorius (Grallator).....	545
cromis (Pogonias).....	405	curta (Scamœnacia).....	353
Crommyodus.....	405	curtidens (Didymictis).....	754
Crossopholis.....	372	curtidens (Viverravus).....	754
Crossopteri.....	357	curtidentata (Fritschia).....	413
Crossopterygia.....	357	curtidentatum (Hylæpeton).....	413
Crossopterygidæ.....	357	curtirostris (Lestosauros).....	470
Crotalidæ.....	480	curtirostris (Liodon).....	470
Crotalina.....	480	curtirostris (Platecarpus).....	470
Crotalus.....	481	curtum (Anthracootherium).....	652
crucians (Hyænodon).....	758	curtum (Brontootherium).....	634

	Page.		Page.
curtum (Phaneropleuron)	555	Cynoidea	769
curtum (Titanotherium)	634	Cynorca	588, 589, 639
curtus (Cimolestes)	566	Cynoroidæ	588
curtus (Cladodus)	270	cypha (Priscacara)	401
curtus (Didymictis)	734	cyphodon (Suchoprius)	490
curtus (Dinichthys)	346	Cyphornis	532
curtus (Heptacodon)	652	Cyprinidæ	394
curtus (Lisgodus)	281	Cyprininae	395
curtus (Petalodus)	278	Cyprinodon	404
curtus (Ponerichthys)	346	Cyprinodontes	398
curtus (Titanops)	634	Cyprinodontidæ	398
curvatus (Anomæpus)	539	Cyprinoidei	394
curvatus (Apatichnus)	539	Cyrtacanthus	336
curvatus (Corax)	309	Cystophora	785
curvatus (Pachyrhizodus)	388		
curvatus (Stenodactylus)	551		
curvicristis (Coryphodon)	698, 699		
curvidens (Equus)	623	D.	
curvidens (Phyllodus)	401	Dactylodus	582, 583
curvidens (Pristis)	316	dædaleus (Orodus)	295
cuspidata (Lamna)	302	Dæodon	683
cuspidata (Odontaspis)	302	Dafila	529
cuspidatum (Hyracotherium)	609	dakotensis (Colodon)	626
cuspidatus (Bathmodon)	698	dakotensis (Eusmilus)	778
cuspidatus (Coryphodon)	698	dakotensis (Ictops)	739
cuspidatus (Ephippus)	609	dakotensis (Mesonyx)	750
cuspidatus (Microsus)	791	Dalatidæ	314
cuspidatus (Mioclenus)	744	Dalodon	633
cuspidatus (Orohippus)	609	Dama	684
cuspidatus (Oxycænus)	744	dane (Ornithichnites)	552
cuspidiger (Amphicyon)	772	danana (Aquila)	536
cuspidiger (Canis)	772	dananus (Eubrontes)	543
cuspidiger (Daphænus)	772	dananus (Eupalamopus)	544
cuspidiger (Paradaphænus)	772	dananus (Palamopus)	544
cuvieri (Mastodon)	709	d'anconæ (Notidanus)	301
cuvieri (Megatherium)	576	Dapedoglossus	395
cuyahogæ (Cocosteus)	344	Daphænos	767, 771
cyanoptera (Anas)	529	Daphænus	772
cyanoptera (Querquedula)	529	Daphænus	772
Cyathaspis	340	Daptinus	385, 386
cyelliferus (Clastes)	377	Daptophyllus	779, 780
cyelliferus (Lepisosteus)	377	dartoni (Amlopsis)	380
Cyclodipterini	358	Dasyatidæ	318
Cycloganoidei	378	Dasyatis	319
Cyclolabridæ	400	Dasybatidæ	318
Cyelopidius	670, 671	Dasypidæ	561
eyclops (Deinictis)	780	Dasyprocta	581
eyclops (Dinictis)	780	Dasyproctidæ	581
Cyclopteridæ	407	Dasyproctini	581
Cyclopteroidea	407	davidsoni (Balænoptera)	599
Cyclopterus	407	davidsonii (Cetotherium)	599
cyclopygia (Testudo)	451	davidsonii (Eschrichtius)	599
cyclopygius (Xerobates)	451	davisi (Selache)	317
Cyclospondyli	314	dawkinsianus (Didymictis)	754
Cyclotomodon	390	dawsoni (Cephalaspis)	341
Cygnus	530	dawsoni (Hylerpeton)	413
cylindricus (Ctenacanthus)	327	dawsoni (Strepsodus)	360
cylindriifer (Calamodon)	575	deaniana (Platypterna)	549
cylindriifer (Stylinodon)	575	deanli (Ornithoidichnites)	549
Cylindracanthus	331	debilis (Archæolurus)	781, 782
Cymatodus	277	debilis (Otolithus)	409
Cymbospondylus	463	debilis (Phoca)	589
Cynocercus	442	debilis (Squalodon)	566
Cynodictis	771, 772	decadens (Chænohyus)	666
Cynodesmus	773		
Cynodontomys	788		

	Page.		Page.
decedens (Cyclopidius)	670	Dercetis	396, 397
decedens (Pitheclistes)	670	Dermatemydidae	444
deciplens (Otolithus)	408	Dermatemys	445, 446
decora (Leptauchenia)	670	Dermatochelyidae	436
decurrens (Ptychodus)	317, 318	Dermochelyidae	436
decussatus (Orodus)	295	Dermochelys	436
deflectus (Ancodus)	653	Dermodactylus	507
deflectus (Hyopotamus)	653	desiderata (Asterolepis)	332
deflexus (Cladodus)	268	desiderata (Astraspis)	342
deflexus (Ctenacanthus)	327	Desmathippus	615
dehiscens (Arachnichnus)	540	Desmatippus	615
Deinictis	779	Desmatochelyidae	442
Deinodon	488	Desmatochelys	443
dekayi (Crocodylus)	515	Desmatotherium	625
dekayi (Mosasaurus)	465, 466	Desmiodus	297
delicator (Paramys)	723	Desmostylus	563
delicator (Plesiarctomys)	723	desorii (Isurus)	306
delicatissimus (Paramys)	723	desorii (Oxyrhina)	305
delicatissimus (Plesiarctomys)	723	destructor (Petalodus)	278
delicula (Phyllolepis)	349	devonicum (Palaeoniscum)	368
delicula (Platypterna)	549	deweyanus (Anisichnus)	511
deliculus (Calopus)	549	deweyanus (Anisopus)	511
deliculus (Ornithodichnites)	549	deweyanus (Batrachopus)	511
delicatus (Centracodon)	740	deweyi (Batrachodichnites)	511
delicatus (Paramys)	723	deweyi (Saurodichnites)	511
Delphinapterinae	594	dextratus (Amblypus)	538
Delphinapterus	591, 592, 594, 599	Diacium	477
Delphinidae	593	Diacodexis	790
Delphininae	593	Diacodon	740, 748, 749
Delphinodon	591	diaconus (Limnohyops)	631
Delphinoidea	588	diaconus (Limnohyus)	631
Delphinus	590, 593, 593, 594	diaconus (Palaeosyops)	631
Deltatherium	715, 751, 753	Diacostalia	452
Deltodopsis	291	Diacranodus	266
Deltodus	289, 291, 293	Diadectes	427
deltoides (Pnigacanthus)	331	Diadectidae	426
Deltotyphius	294	dialophus (Ctenodus)	354
Dendrerpetidae	417	dialophus (Sagenodus)	354
Dendrerpeton	415, 417	Diaphorocetus	596
Dendrerpetontidae	417	diastematicus (Mesodon)	372
Dendrerpetum	418	diastematicus (Typodus)	372
Dendrodus	359	Diastichus	395
dens-humani (Helodus)	286	Diatryma	522
densus (Leptomylus)	325	Dibelodon	707, 711, 712
dentatus (Cladacanthus)	336	Diceratheriinae	612
dentatus (Cyrtacanthus)	336	Diceratherium	651, 653, 644
dentatus (Diplomystus)	391	Diclonius	503, 504
dentatus (Polyrhizodus)	283	Diconodon	637
dentatus (Saurocephalus)	386	dicornutus (Lefalophodon)	701
Denticeta	588	Dicotyles	589, 657, 658, 660, 661
Denticete	588	Dicotylidae	658
Denticetes	588	Dicotylinae	658
denticulata (Lamna)	302	Dicranocerus	686
denticulata (Sphyrna)	314	Dicrenodus	271
denticulatus (Helodus)	286	Dicrocerus	682, 683
depressa (Amia)	380	Dicrocyonodon	568
depressa (Janassa)	276	Dicrocyonodontidae	568
depressifrons (Dicotyles)	660	dictyocephala (Amia)	380
depressifrons (Hyops)	660	Dictyocephalus	123
depressus (Ctenacanthus)	327	Dictyodus	399
depressus (Mosasaurus)	465	Dictyopyge	370
depressus (Physonemus)	333	Dictyopygidae	370
depressus (Ptychodus)	517	Dictyorhabdus	325
depressus (Tanaodus)	276	Dicynodon	430
Dercetidae	396	Dicynodontia	430
Dercetiformes	396	Dicynodontidae	430

	Page.		Page.
Didelphia	563	Diplodocidæ	498
Didelphidæ	570	Diplodocus	486, 496
Didelphis	570	Diplodus	265, 296, 297
Didelphodon	565	Diplognathus	346
Didelphodus	763	Diplomystus	391
didelphoides (Ictops)	739	diplophysus (Pleuroleucus)	731
didelphoides (Palæictops)	739	Diplosaurus	516
Didelphops	565, 566	Diplospondyli	300
Didelphydæ	570	Diplospondylidæ	420
Didelphys	570	Diplotomodon	473
didelta (Arvicola)	728	Diplovertebridæ	420
didelta (Microtus)	728	Diplus	364
didelta (Pitymys)	728	Dipneusta	338, 350
Dilatatus	754, 755	Dipnoi	341, 350
Didymictis	265	Dipodidæ	732
Didymodus	419	Dipodinae	733
digitata (Sauropleura)	233	Dipriodon	560, 561
digitatus (Ctenoptychius)	233	Dipriodontidæ	558
digitatus (Dactylodus)	233	Dipteridæ	351
digitatus (Polyrhizodus)	283	Dipterini	351
digitigrada (Platypterna)	549	Dipterus	351, 354, 355
digona (Cimolomys)	560	Dipus	732
digona (Ptilodus)	560	Diracodon	496
dilatatus (Pleuracanthus)	264	Dirrhizodon	513
Dilophodon	625, 626	dirus (Canis)	775
diluviana (Mustela)	767	dirus (Cimolichthys)	390
diluvianus (Microtus)	728	dirus (Enchodus)	390
Dimetrodon	432	dirus (Phagranodus)	390
dimidiata (Erlachthe)	379	disauris (Carcharodon)	307
dimidiata (Protosphyrena)	379	discephorus (Cricotus)	421
Dinictis	779, 780	discors (Anas)	529
Dinichthyidæ	345	discors (Querquedula)	529
Dinichthyinae	345	Discoosaurus	458, 459
Dinichthys	345, 348	discrepans (Vaticinodus)	290
Dinobastis	781	discurus (Hypsirophus)	488, 496
Dinoceras	702, 705	discurus (Stegosaurus)	496
Dinocerata	701	discus (Baptanodon)	463
Dinocera	701	discus (Sauranodon)	463
Dinoceratidæ	701	dispar (Brontops)	634
Dinodon	488, 489	dispar (Camptonotus)	501
Dinodontidæ	487	dispar (Camptosaurus)	501
Dinophis	479	dispar (Cleidastes)	467
Dinosauria	481	dispar (Cumnorla)	501
Dinotherium	708, 709	dispar (Edestosauros)	467, 468
Dinotomius	778, 779	dispar (Ichthyornis)	520
Dinoziphis	596	dispar (Megacerops)	634
Diodon	408	dispar (Titanotherium)	634
Diodontidæ	408	disparidigitatum (Argozoum)	540
Diodontoidea	408	Dissacus	749
Diopeus	431	dissimilis (Megalonyx)	577, 578
Dioplon	597	Dissodus	265, 296, 297
Dioplotherium	582	Dissorhophus	420
Diphissa	324, 325	distans (Dinoceras)	703
Diplacanthidæ	274	distans (Eohyus)	649, 651
Diplacanthus	274	distans (Lemuravus)	789
Diplacodon	632, 638	distans (Moropus)	601
Diplarthia	607	distortus (Petalorhynchus)	278
Diplaspis	340	Ditetrodon	701, 702
Diplocanthus	274	ditrigonus (Conoryctes)	691
Diplocaulidæ	416	ditrigonus (Ectoconus)	694
Diplocaulus	416	ditrigonus (Periptychus)	694
Diplocionus	633	Dittodus	265, 360
diploconum (Telmatherium)	631	divaricans (Macropterna)	543
diploconum (Telmatotherium)	631	divaricans (Palamopus)	543
Diplocynodon	514	divaricatum (Broutozoum)	543
Diplocynodontidæ	568	divaricatum (Ceraterpeton)	414
Diplocynodus	513, 514		

	Page.		Page.
<i>divaricatum</i> (Keraterpeton)	414	<i>durus</i> (Mastodonsaurus)	423
<i>divaricatus</i> (Cottus)	406	<i>dux</i> (Raja)	316
<i>divaricatus</i> (Edaphodon)	324	<i>Dyoplax</i>	511
<i>divaricatus</i> (Eubrontes)	543	<i>dysclerus</i> (Oxyænodon)	759
<i>divaricatus</i> (Ischyodus)	324	<i>Dysganus</i>	504
<i>divaricatus</i> (Ornithoidichnites)	552	<i>dysodus</i> (Oxyænodon)	759
<i>divaricatus</i> (Otodus)	304, 795	<i>dyspelor</i> (Liodon)	472
<i>diversidens</i> (Borophagus)	776	<i>dyspelor</i> (Rhinosaurus)	472
<i>diversidens</i> (Hyæna)	776	<i>dyspelor</i> (Tylosaurus)	472
<i>diversidens</i> (Caulodon)	484	<i>Dysporomorphæ</i>	532
<i>diversus</i> (Ornithichnites)	551	<i>Dystrophæus</i>	497
<i>Docodon</i>	568		
<i>dodgei</i> (Daphænus)	772		
<i>dodgei</i> (Daphænus)	772		
<i>dolichoceras</i> (Brontotherium)	634		
<i>dolichoceras</i> (Menodus)	634		
<i>dolichoceras</i> (Titanotherium)	634		
<i>dolichopsis</i> (Cariacus)	634		
<i>dolichopsis</i> (Dama)	634		
<i>Dolichorhinus</i>	532		
<i>Dolichosomatidæ</i>	411		
<i>dolichus</i> (Enchodus)	389		
<i>Doliodus</i>	267		
<i>dolloverianus</i> (Embolophorus)	433		
<i>dollovianus</i> (Embolophorus)	433		
<i>Domnina</i>	739, 741, 571		
<i>Dorcatherium</i>	671		
<i>dorsalis</i> (Neurodromicus)	481		
<i>dorsata</i> (Hystrix)	733		
<i>dorsatus</i> (Erethizon)	733		
<i>Dorudon</i>	587		
<i>Doryodon</i>	587, 589		
<i>Drepanacanthus</i>	333, 334		
<i>Drepanodon</i>	471, 778		
<i>Dromæognathæ</i>	522		
<i>Dromæopappi</i>	521		
<i>Dromatherida</i>	555		
<i>Dromatheridæ</i>	555		
<i>Dromatherium</i>	555		
<i>Dromocyon</i>	750, 751		
<i>Dromopus</i>	543		
<i>Drydenius</i>	365		
<i>Dryolestes</i>	569		
<i>Dryolestidæ</i>	569		
<i>Dryosaurus</i>	501		
<i>Dryptodon</i>	575		
<i>Dryptosauridæ</i>	487		
<i>Dryptosaurus</i>	487, 489		
<i>dubia</i> (Lamna)	302		
<i>dubia</i> (Odontaspis)	302		
<i>dubius</i> (Rhinoptera)	321		
<i>dubius</i> (Zygobatis)	321		
<i>dumblei</i> (Mesodon)	373		
<i>dumblei</i> (Microdon)	373		
<i>dumblei</i> (Typodus)	373		
<i>dumblianus</i> (Paleoconotus)	490		
<i>duplex</i> (Carcharias)	302		
<i>duplex</i> (Lamna)	302		
<i>duplex</i> (Odontaspis)	302		
<i>duplex</i> (Stegosaurus)	496		
<i>duplicatus</i> (Diplodus)	267		
<i>duplicatus</i> (Gyracanthus)	335		
<i>duplicatus</i> (Thrinacodus)	267		
<i>Duplicidentata</i>	734		
<i>durinus</i> (Metopocetus)	598		
<i>durus</i> (Eupelor)	423		

EL.

<i>Eboroziphius</i>	596
<i>Ecaudata</i>	425
<i>eccentricus</i> (Cladodus)	268
<i>Echinorhinidæ</i>	314
<i>Echinorhinoidæ</i>	314
<i>Echinorhinus</i>	315
<i>Ectacodon</i>	697, 698
<i>Ectocion</i>	605
<i>Ectocium</i>	605
<i>Ectoconodon</i>	692
<i>Ectoconus</i>	694
<i>Ectocynodon</i>	428
<i>Ectoganidæ</i>	673
<i>Ectoganus</i>	575
<i>Ectosteorhachis</i>	362
<i>Eczematolepis</i>	332
<i>Edaphodon</i>	324, 325
<i>Edaphosauridæ</i>	431
<i>Edaphosaurus</i>	432, 483
<i>edax</i> (Miacleis)	760
<i>edax</i> (Uintacyon)	760
<i>Edentata</i>	671, 684
<i>Edestidæ</i>	337
<i>Edestosauridæ</i>	464
<i>Edestosaurus</i>	466, 467, 468
<i>Edestus</i>	337
<i>edwardsianus</i> (Laornis)	581
<i>effodiens</i> (Hemicaulodon)	583
<i>Effodientia</i>	575
<i>egertoni</i> (Carcharias)	313
<i>egertoni</i> (Carcharhinus)	312
<i>egertoni</i> (Corax)	312
<i>egertoni</i> (Galeocerdo)	313
<i>egertoni</i> (Prionace)	313
<i>egertoni</i> (Prionodon)	313
<i>Elachoceras</i>	705
<i>Elaphus</i>	684, 685, 714
<i>Elasmobranchii</i>	262
<i>Elasmognathus</i>	628
<i>Elasmosauridæ</i>	457
<i>Elasmosaurus</i>	458
<i>Elasmotheriina</i>	645
<i>Elasmotheriinae</i>	645
<i>elatum</i> (Chalicotherium)	691
<i>elatum</i> (Titanotherium)	635
<i>elatus</i> (Diplacodon)	632
<i>elatus</i> (Moropus)	691
<i>elatus</i> (Titanops)	635
<i>elatus</i> (Triceratops)	498
<i>elegans</i> (Amia)	381
<i>elegans</i> (Anisacodon)	791
<i>elegans</i> (Asteroptychius)	330
<i>elegans</i> (Bunomeryx)	650

	Pag.		Page.
elegans (Chomatodus)	280	Emydes	447
elegans (Cladodus)	268	Emydidae	447
elegans (Cœlacanthus)	364	Emydides	447
elegans (Ctenacanthus)	327	emydinus (Cyclopidius)	670
elegans (Dictyocephalus)	423	emydinus (Thoracodus)	277
elegans (Elonichthys)	368	Emydoidæ	447
elegans (Eumys)	728	Emydosauria	506
elegans (Hypamia)	381	Emys	437, 444, 445, 447, 450
elegans (Ischypterus)	375	Enaliosauria	461
elegans (Lamna)	303, 305	encaustum (Osteoglossum)	393
elegans (Limnotherium)	791	encaustus (Dapedoglossus)	393
elegans (Merychys)	669	encaustus (Dysganus)	506
elegans (Microsops)	791	encaustus (Phareodus)	393
elegans (Odontaspis)	303	Enchodidae	383
elegans (Ornithodichnites)	551	Euchodontidae	383
elegans (Pediomys)	565	Enchodus	383, 390
elegans (Phyllodus)	401	enchodus (Anisodexis)	423
elegans (Plectropterna)	549	endlichii (Eristmatopterus)	404
elegans (Rabdiolepis)	368	Enhydrocyon	769
elegans (Rhabdolepis)	368	Ennacodon	566
elegans (Semionotus)	375	Enneodon	568
elegans (Sterna)	535	ennisiatus (Lepus)	736
elegans (Steropoides)	551	enodis (Taphrophys)	435
elegans (Tridentipes)	551	ensidens (Pristis)	316
elegans (Trihamus)	553	ensidens (Saniwa)	475
elegantior (Steropoides)	551	ensifer (Cariacus)	684
elegantior (Tridentipes)	551, 552	ensifer (Cervus)	684
elegantius (Steropezoum)	551, 552	ensifer (Dama)	684
elegantulus (Orodus)	295	ensis (Notidanus)	301
elegantulus (Otolithus)	408	ensis (Xiphodolamia)	301
Elephantidae	706	Entelodon	654, 655
elephantopus (Bathmodon)	693	entoconus (Conacodon)	696
elephantopus (Coryphodon)	698, 699	entoconus (Haploconus)	696
Elephas	708, 709, 712	Entomacodon	741
elevatus (Otolithus)	409	Entomodon	740, 765
ellangowensis (Anthracopus)	590	entoptychi (Amphicyon)	772
elliottii (Crocodylus)	512	Entoptychus	731
elliottii (Thecachampsa)	512	Eobasilidae	701
Ellipsodon	606, 746	Eobasilus	704, 706
elliptica (Palæaspis)	340	Eobasilidæ	701
ellipticus (Sandalodus)	289	Eobatrachus	425
Elliptonodon	473	eocænis (Edaphodon)	324
Elomeryx	652	eocænis (Ischyodus)	324
elongatus (Cladodus)	270	Eohippus	605, 608, 609, 610, 627
elongatus (Stenopterodus)	291	Eohyidae	650
Elonichthys	368	Eohys	649, 651
Elotheriidae	653	Eomeriidae	664
Elotheriine	653	Eomeryx	664
Elotherium	650, 654, 656	Eosaurus	421
elytra (Chomatodus)	286	Eotherium	636
elytra (Helodus)	286	eous (Equus)	622
emarginatus (Diplacodon)	633	Epanorthidae	565
emarginatus (Osteopygis)	441	Epanterias	483
Embalorhynchus	403	Ephippidae	400
Embaphias	459	Ephippus	400
Embassia	570, 571	Epicrhiacus	744, 745
Embolomeri	410, 417	Epicordylus	421, 422
Embolophorus	431, 433	Epicyon	774
emmonsi (Acrodus)	299	Epihippus	611, 612
emmonsi (Hoplocetus)	596	Epimyceri	777
emmonsi (Ontocetus)	596	Episcoposaurus	511
emmonsianus (Triænopus)	553	Eplacentalia	555
emmonsi (Sauroideichnites)	553	Eporeodon	665, 666, 667, 668
Empedias	427	eporrectus (Otolithus)	408
Empedocles	427	equiceps (Anchitherium)	613, 614
Empo.	387, 795	equiceps (Meshippus)	614

	Page.		Page.
equiceps (Miohippus)	614	Eupelor	423
Equidae	606	Euphaneropidae	341
Equine	616	Euphanerops	341
equinum (Anchitherium)	615	euphractus (Glyptodon)	580
Equoidea	608	euphractus (Hoplophorus)	580
Equus	616, 617, 618, 620, 621	Euprotogonia	603, 746
equus (Hoplichnus)	546	Eurhipidura	519
Ereptodon	578	Eurinotus	576
Erethizon	733	Euryacodon	741
Erethizontidae	732	eurydinus (Thoracodus)	277
Erethizontinae	732	Eurydorus	510
Erinaceidae	741	Eurylepis	366, 367
Eriptychius	359	Eurynotus	576
Erisichthe	579	euryops (Merychys)	669
Erisichtheidae	578	eurypygia (Cistudo)	449
Erismacanthus	335	eurypygia (Terrapene)	449
Eristapterus	404	eurstylus (Equus)	620
erminius (Putorius)	768	eurstylus (Hipparion)	620
erosus (Osteopygis)	441	Eurythorax	416
eruciferus (Arotus)	356	Euselachii	274, 795
eruciferus (Ceratodus)	356	Eusmilus	778
Eryopidae	421	Eusthenopteron	361
Eryops	421, 432, 434	Eusuchia	511
Erythizon	753	Eusydodon	646
erythroliticus (Epicordylus)	421	Euthacanthus	274
erythroliticus (Eryops)	422	Eutheria	563, 571
erythrorhynchus (Pelecanus)	532	Eutatus	531
Eschallidae	680	eutheta (Emys)	447
Eschatus	680	evansi (Dorcatheium)	671
Eschrichtius	598, 599	evansi (Leptomeryx)	671
Esoces	598	evolutus (Anognmus)	393
Esocidae	598	evolutus (Osmeroides)	393
Esocini	598	exanthematica (Peplorhina)	364
Esos	598	exanthematicus (Conchloopsis)	364
Esthonychidae	715	excavatus (Ctenacanthus)	327
esulcatus (Leptomeryx)	671	excavatus (Dactylodus)	235
Esthonyx	715, 790	excavatus (Polyrhizodus)	233
etsagius (Mioclenus)	649	excavatus (Rhynchodus)	323
etsagius (Pantolestes)	649	excelsus (Brontosaurus)	485
etsagius (Trigonolestes)	649	excelsus (Equus)	623
Eubradys	579	excelsus (Scapherpeton)	424
Eubrontes	539, 543	excessicornis (Lefalophodon)	706
Eucastor	722	exiguus (Cladodus)	268
Euchelonia	435	exilis (Cladodus)	268
Eucherus	660	exilis (Iguanavus)	474
Euclastes	441, 442	eximia (Prosinopa)	788
Eucrotaphus	663, 665, 666, 667, 668	eximia (Sinopa)	788
Euctenius	337	eximius (Poebrotherium)	675
Euelephas	712, 713	eximius (Aëtobatis)	320
Euganoides	574	eximius (Hyrachys)	639
englypha (Emys)	447	eximius (Mesobatis)	320
englyphaeus (Cladodus)	268	Exocampe	544
Eugnathidae	578	exoletum (Anchitherium)	614
euhypodon (Mastodon)	710	exoletus (Mesohippus)	614
euhypodon (Mammut)	710	exoletus (Miohippus)	614
euhypodon (Mastodon)	710	exornatus (Deltodopsis)	291
euhypodon (Tetrabelodon)	710	Exostinus	476
Eulichthyes	338	expansa (Megaptera)	599
Eulamia	512	expansum (Brontozoum)	543
Eumetopias	783	expansum (Cetotherium)	599
Eumylodus	324	expansus (Deltotyphlus)	294
Eumys	726, 727	expansus (Eschrichtius)	599
Eunemacanthus	329	expansus (Eubrontes)	543
Euornithes	523	expansus (Ornithodichnites)	543
Eupachemys	448, 451	expansus (Periplectrodon)	287
Eupalamopus	544	expansus (Siphonocetus)	599

	Page.		Page.
expansus (Tarsodactylus).....	552	ferox (Cladodus).....	268
explanatus (Dryptosaurus).....	488	ferox (Clenodon).....	747
explanatus (Laelaps).....	488	ferox (Cœlosteus).....	361
explanatus (Mesodmodus).....	297	ferox (Coloreodon).....	663
exsculptus (Mesodmodus).....	297	ferox (Didelphodon).....	566
exsertum (Brontozoum).....	643	ferox (Didelphops).....	566
exsertus (Eubrontes).....	543	ferox (Enchodus).....	329
extenta (Oxyrhina).....	306	ferox (Hyposaurus).....	516
extinctus (Sicarius).....	278	ferox (Labrosaurus).....	490
eyra (Fells).....	782	ferox (Limnofelis).....	757
F.			
faba (Pycnodus).....	373	ferox (Mioclenus).....	747
faber (Chætodipterus).....	400	ferox (Oxyclenus).....	747
faber (Chætodon).....	400	ferox (Pachyrhizodus).....	338
faciatus (Teniodus).....	292	ferox (Patriofelis).....	757
falcatus (Corax).....	309, 311	ferox (Priacodon).....	567
falcatus (Galeocerdo).....	309	ferox (Ptyctodus).....	323
falcatus (Heterodon).....	309	ferox (Saurocephalus).....	386
falcatus (Physonemus).....	333	ferox (Saurodon).....	386
falcatus (Selenichnus).....	551	ferox (Sphenacodon).....	434
Falciformes.....	535	ferox (Temnoctyon).....	773
Falcones.....	535	ferox (Tinodon).....	567
Falconide.....	535	ferox (Triconodon).....	567
fulculus (Dryptosaurus).....	488	ferox (Ursus).....	763
fulculus (Laelaps).....	488	ferricolus (Eryops).....	422
fallax (Ctenacanthus).....	327	ferricolus (Parioxys).....	422
fallax (Triacodon).....	753	ferruminatus (Tomiopeis).....	561
fallax (Washakius).....	787	Fiber.....	729
fasciatus (Deltodus).....	292	fiber (Castor).....	721
fasciatus (Taniodus).....	292	fieldi (Hyphepus).....	546
fasciculare (Thyrsideum).....	416	filholianus (Carenodon).....	762
fastigiatus (Crocodylus).....	512	filholianus (Mioclenus).....	762
fastigiatus (Myliobatis).....	320	filiferus (Conchiopsis).....	364
fastigiatus (Orodus).....	295	flosus (Holoptychius).....	358
fastigiatus (Thecachampsia).....	512	fimbriatus (Harpacanthus).....	336
fatalis (Fells).....	780	fimbriatus (Triptychius).....	336
fatalis (Machærodon).....	780	firma (Emys).....	445
fatalis (Machæirodon).....	781	firma (Adocus).....	445
fatalis (Smilodon).....	780	firma (Agomphus).....	445
fatalis (Trucifelis).....	780	firma (Emys).....	445
favirostris (Anognmus).....	393	fissidens (Bathyopsis).....	700
favirostris (Osmeroides).....	393	fissidens (Catopsalis).....	563
favosum (Scapherpeton).....	424	fissidens (Miolabis).....	677
favosus (Ceratodus).....	356	fissidens (Polymastodon).....	563
favosus (Conodectes).....	430	fissidens (Procamelus).....	677
secundus (Edaphodon).....	324	fissidens (Uintatherium).....	700
secundus (Ischyodus).....	324	Fissipedia.....	762
feliceps (Brachymeryx).....	671	Fissodus.....	277
Felidæ.....	777	fissus (Empedias).....	427
felina (Delmictis).....	780	fissus (Monoclonius).....	500
felina (Dinictis).....	780	fiabellatus (Holoptychius).....	358
Fellinæ.....	781	fiabellatus (Sterrholophus).....	499
felinus (Daphænus).....	772	fiabellatus (Triceratops).....	499
felinus (Daphænus).....	772	fiabelliformis (Ctenodus).....	351
Fellis.....	778, 782, 783	fiabelliformis (Dipterus).....	351
felix (Diplosaurus).....	516	fiabellum (Desmodus).....	297
felix (Goniopholis).....	516	fiagellator (Zarbachis).....	592
felix (Lestosauros).....	470	fiagrans (Opisthotomus).....	792
felix (Platecarpus).....	470	flectidens (Uranoplosus).....	373
Ferre.....	743	fleischeri (Ctenodus).....	351
ferox (Æturodon).....	774	fleischeri (Dipterus).....	351
ferox (Agriocherus).....	663	flexiloquus (Antipus).....	540
ferox (A. losaurus).....	490	floridana (Neotoma).....	727
ferox (Bison).....	689	floridanum (Mammut).....	710
ferox (Carcharodon).....	308	floridanus (Drepanodon).....	781
		floridanus (Glyptodon).....	581
		floridanus (Machærodon).....	781

	Page.		Page.
floridanus (<i>Machairodus</i>)	781	fraterculus (<i>Gavialis</i>)	515
floridanus (<i>Mastodon</i>)	710	fraterculus (<i>Hyposaurus</i>)	515
floridanus (<i>Smailodon</i>)	781	fraternus (<i>Baptosaurus</i>)	468
floridanus (<i>Tetrabelodon</i>)	710	fraternus (<i>Equus</i>)	623, 624
floriferus (<i>Orthodactylus</i>)	547	fraternus (<i>Hallsaurus</i>)	468
flowerianus (<i>Mioclenus</i>)	603	fraternus (<i>Mysops</i>)	725
flowerianus (<i>Tetraclenodon</i>)	603	fraternus (<i>Syllophodus</i>)	725
foliens (<i>Tillotherium</i>)	716	fraternus (<i>Tomolabis</i>)	623
foliarum (<i>Trichophanes</i>)	404	Fringillidæ	537
foliatus (<i>Catopsalis</i>)	562	fritillus (<i>Embolophorus</i>)	433
foliatus (<i>Polymastodon</i>)	562	Fritschia	413
foliatus (<i>Sagenodus</i>)	354	frontata (<i>Mephitis</i>)	766
fontinalis (<i>Limnohyops</i>)	630	frugivorum (<i>Tomitherium</i>)	789
fontinalis (<i>Limnohyus</i>)	630	frugivorus (<i>Pelycodus</i>)	789
fontinalis (<i>Palæosyops</i>)	630	fugax (<i>Didelphis</i>)	571
foordii (<i>Eusthenopteron</i>)	361	fugax (<i>Didelphys</i>)	571
forcipata (<i>Anoplonassa</i>)	597	fugax (<i>Herpetotherium</i>)	571
forcipata (<i>Oxyæna</i>)	757	fugax (<i>Peratherium</i>)	571
forfex (<i>Leptomylus</i>)	325	fulcatus (<i>Mosasauros</i>)	465
formosum (<i>Aciprion</i>)	477	Fullea	528
formosus (<i>Cimolomys</i>)	560	Fulicariæ	526
formosus (<i>Ctenacanthus</i>)	327	fulcoides (<i>Ornithichnites</i>)	550
formosus (<i>Grallator</i>)	545	fulcoides (<i>Ornithoidichnites</i>)	550
formosus (<i>Halodon</i>)	560	Fulicopus	544, 550
formosus (<i>Hipposyus</i>)	793	Fuligula	530
formosus (<i>Troödon</i>)	490	fulleri (<i>Cladodus</i>)	268
forsteri (<i>Sterna</i>)	525	fultus (<i>Ischypterus</i>)	375
fortis (<i>Allacodon</i>)	557	fultus (<i>Palæoniscus</i>)	375
fortis (<i>Allodon</i>)	557	fultus (<i>Semionotus</i>)	375
fortis (<i>Cervus</i>)	685	fundaminis (<i>Deltatherium</i>)	751
fortis (<i>Deinictis</i>)	780	furcatum (<i>Tinoceras</i>)	706
fortis (<i>Dinictis</i>)	780	furcatum (<i>Uintatherium</i>)	706
fossatus (<i>Ctenodus</i>)	354	furcatus (<i>Antiacodon</i>)	793
fossatus (<i>Metamosaurus</i>)	434	furcatus (<i>Cosoryx</i>)	683
fossatus (<i>Sagenodus</i>)	354	furcatus (<i>Dicrocerus</i>)	683
fossidens (<i>Mephitis</i>)	766	furcatus (<i>Eobasilus</i>)	706
fossiger (<i>Aceratherium</i>)	647	furcatus (<i>Merycodus</i>)	683
fossiger (<i>Aphelops</i>)	646	furcatus (<i>Loxolophodon</i>)	706
fossiger (<i>Teleoceras</i>)	646	furcatus (<i>Procervulus</i>)	683
fossilis (<i>Dicotyles</i>)	659	furcatus (<i>Sarcolemur</i>)	793
fossilis (<i>Equus</i>)	622	furcularinatus (<i>Ctenacanthus</i>)	296, 327
fossilis (<i>Manatus</i>)	583, 584	fuscus (<i>Adelonycteris</i>)	742
fossilatus (<i>Merychippus</i>)	616	fuscus (<i>Vesperus</i>)	742
fossilatus (<i>Phiohippus</i>)	616	fuscus (<i>Vesperilio</i>)	742
fossilatus (<i>Protohippus</i>)	616	fuscus (<i>Vesperugo</i>)	742
foulkil (<i>Hadrosaurus</i>)	503	fusiforme (<i>Amyzon</i>)	395
foulkil (<i>Trachodon</i>)	503	fuzax (<i>Herpetotherium</i>)	571
foveatus (<i>Colosteus</i>)	419	fyleri (<i>Cladodus</i>)	272
foveatus (<i>Sauropelura</i>)	419	fyleri (<i>Cladoselache</i>)	272
foveatus (<i>Trionyx</i>)	454		
fractus (<i>Plastomenus</i>)	452		
fragilis (<i>Acantholepis</i>)	332		
fragilis (<i>Allosaurus</i>)	489		
fragilis (<i>Cœlurus</i>)	486, 493		
fragilis (<i>Eczematolepis</i>)	332		
fragilis (<i>Labrosaurus</i>)	489		
fragilis (<i>Meniscosaurus</i>)	561		
fragilis (<i>Oracanthus</i>)	332		
fragilis (<i>Selenacodon</i>)	561		
fragillimus (<i>Amphicœlias</i>)	486		
fragillissimus (<i>Amphicœlias</i>)	486, 493		
frangens (<i>Palæomylus</i>)	323		
frangens (<i>Rhynchodus</i>)	323		
fraserianus (<i>Palæosaurus</i>)	492		
fraserianus (<i>Thecodontosaurus</i>)	492		

G.

gabbii (<i>Delphinapterus</i>)	591
gabbii (<i>Priscodelphinus</i>)	591
gabbii (<i>Tretosphyx</i>)	591
galeatum (<i>Tinoceras</i>)	704
galeatum (<i>Uintatherium</i>)	704
galeatus (<i>Eobasilus</i>)	704
galeatus (<i>Loxolophodon</i>)	704
Galecyne	771
Galei	301, 310
Galeide	310
Galeocerdo	309, 311, 315
Galeoides	301
Galeorhinidæ	310
Galeorhininæ	311

	Page.		Page.
Galeorhinus.....	312	Gephyura.....	398
Galera.....	766, 767	Geranomorphæ.....	526, 527
Galeus.....	309, 311, 312	Gerrhonotidae.....	474
galeus (Squalus).....	312	Getalodus.....	278
galeus (Triceratops).....	498	gibbaceus (Alburnops).....	395
Gallictia.....	766, 767	gibbaceus (Myloleucus).....	395
Gallidæ.....	533	gibbaceus (Rutilus).....	395
Galliformes.....	533	gibberulus (Helodus).....	286
gallinaceus (Ornithopus).....	551	gibberulus (Lophodus).....	286
Gallinæ.....	533	gibbesii (Aprionodon).....	313
Gallinuloides.....	535	gibbesii (Carcharias).....	313
gallinuloides (Anomæpus).....	539	gibbesii (Carcharhinus).....	306, 313
Gallinuloididæ.....	535	gibbesii (Saurocetus).....	568
gallinuloides (Ornithiehnites).....	539	gibbesii (Sphyrna).....	314
gallopavo (Meleagris).....	534	gibbesii (Zeuglodon).....	588
Gamphacanthus.....	332	gibbiceps (Anthracotherium).....	652
Gampæacanthus.....	336	gibbiceps (Heptacodon).....	652
Ganalodus.....	360	gibbidens (Thecodontosaurus).....	492
ganei (Heterodontosuchus).....	515	gibbosus (Amacanthus).....	329
Ganocephala.....	417	gibbosus (Diplodus).....	265, 266
Ganocephali.....	417, 419	gibbosus (Dissodus).....	266
Ganodonta.....	572	gibbosus (Dittodus).....	266
Ganoidei.....	338, 356	gibbosus (Helodus).....	295
Ganoides.....	357	gibbosus (Homacanthus).....	329
Ganorhynchidæ.....	392	gibbosus (Orodus).....	295
Ganorhynchus.....	392	gibbus (Diplacanthus).....	274
Garials.....	515	gibbus (Helodus).....	286
garmani (Notomorpha).....	448	gibsoni (Cricotus).....	421
gaskillii (Edaphodon).....	324	Gigadipus.....	545
gaskillii (Ischyodus).....	524	Gigandipus.....	545
Gasterosteorhynchus.....	396	gigantea (Pachyena).....	749
Gasterostelidæ.....	397	giganteum (Brontozoum).....	543
Gasterosteus.....	397	giganteum (Diatryma).....	522
Gastornis.....	522	giganteum (Gastornis).....	522
Gastornithes.....	522	giganteum (Mastodon).....	707
Gastornithidæ.....	522	giganteum (Palæotherium).....	636
Gastrodus.....	360	giganteus (Amblonyx).....	544
Gastrolepidoti.....	421	giganteus (Edestus).....	337
gaudrianus (Trilodon).....	748	giganteus (Equus).....	623
gaudrianus (Goniacodon).....	748	giganteus (Eubrontes).....	543
gaudryi (Agriochærus).....	663	giganteus (Fulicopus).....	544
gaudryi (Artionyx).....	663	giganteus (Holoptychius).....	358
gaudryi (Coloreodon).....	663	giganteus (Manatus).....	584
Gavie.....	523	giganteus (Mastodon).....	707, 711
Gavialidæ.....	515	giganteus (Menodus).....	636
Gavials.....	515	giganteus (Ornithiehnites).....	543
Gelsacanthus.....	330	giganteus (Ornithoidiehnites).....	543
gelsarianus (Canis).....	771	giganteus (Plesiornis).....	550
gelsarianus (Cynodictis).....	771	Gigantitherium.....	545
gelsarianus (Galecynus).....	771	gigas (Alopecias).....	305
gelsarianus (Nothocyon).....	771	gigas (Archæobatis).....	285
gemma (Otolithus).....	408	gigas (Atlantochelys).....	440
gemmatus (Ctenacanthus).....	327	gigas (Brontotherium).....	635
gemmatus (Drepanacanthus).....	334	gigas (Clepsydrus).....	432
gemmatus (Physonemus).....	334	gigas (Dimetrodon).....	432
gemmatus (Xystacanthus).....	334	gigas (Ephippus).....	400
gemmifer (Blastomeryx).....	682	gigas (Hydrodamalis).....	564
gemmifer (Cosoryx).....	682	gigas (Ischypterus).....	375
gemmifer (Dicrocerus).....	682	gigas (Manospondylus).....	500
gemmifer (Merycodus).....	682	gigas (Morootherium).....	560
gentryi (Enchodus).....	389	gigas (Mylobatis).....	320
gentryi (Phaeganodus).....	389	gigas (Physonemus).....	333
Geolabis.....	739, 741	gigas (Polemarchus).....	550
Geomyidæ.....	730	gigas (Protosphyrena).....	379
Geomys.....	730	gigas (Protostega).....	440
Geosaurus.....	471	gigas (Rhytina).....	584

	Page.		Page.
gigas (Semionotus).....	376	gouldii (Dinichthys).....	346
gigas (Taurus).....	689	gouldii (Plesiosaurus).....	456
gigas (Titanotherium).....	635	gouldii (Ponerichthys).....	346
gilbertii (Testudo).....	451	gracile (Anchitherium).....	612
gilllanus (Anisonchus).....	696	gracile (Miothen).....	571
gillianus (Haploconus).....	695	gracilior (Anisichnus).....	541
Gillicus.....	386	gracilior (Anisopus).....	541
gillii (Paleotetrix).....	534	gracilior (Batrachopus).....	541
Ginglymodi.....	374, 376	gracilior (Harpedactylus).....	545
Ginglymostoma.....	310	gracilior (Ornithopus).....	551
Ginglymostomidae.....	310	gracilior (Ornithoidichnites).....	551
Ginglymostominae.....	310	gracilior (Sillimanius).....	551
Ginglystomoides.....	310	gracillima (Platypterna).....	549
Girtyi (Cladodus).....	268	gracillimus (Acondylacanthus).....	329
Giscanthus.....	330	gracillimus (Anomœpus).....	539
glaber (Clastes).....	577	gracillimus (Brontozoum).....	539
glaber (Lepisosteus).....	377	gracillimus (Chomatodus).....	276
glaber (Otolithus).....	408	gracillimus (Ctenacanthus).....	329
glacialis (Harelda).....	530	gracillimus (Eubrontes).....	539
gladiolus (Cimollehthys).....	389	gracillimus (Grallator).....	539
gladiolus (Enchodus).....	389	gracillimus (Ornithoidichnites).....	539
gladiolus (Phasganodus).....	389	gracillimus (Petalodus).....	276
gladius (Pelecopterus).....	579	gracillimus (Tanaodus).....	276
gladius (Portheus).....	579	gracilipes (Macropterna).....	548
gladius (Protosphyrena).....	379	gracilipes (Palamopus).....	548
gladius (Torosaurus).....	499	gracilis (Acondylacanthus).....	329
glandiferus (Lestosauros).....	470	gracilis (Aletornis).....	527
glandiferus (Liodon).....	470	gracilis (Amia).....	331
glandiferus (Platecarpus).....	470	gracilis (Amphicyon).....	771
Glaucionetta.....	530	gracilis (Anisichnus).....	541
Glires.....	717	gracilis (Anisopus).....	541
giliriformis (Ectoganus).....	575	gracilis (Antliodus).....	279
Glosochelys.....	441	gracilis (Asteroptychius).....	330
Glosotherium.....	579	gracilis (Batrachopus).....	541
glottoides (Myllobatis).....	320	gracilis (Catopterus).....	370
Glymmatacanthus.....	331	gracilis (Cimolomys).....	559, 560
Glyphis.....	312, 313	gracilis (Cladodus).....	268
Glyptaspis.....	349	gracilis (Climatius).....	329
Glyptemys.....	449	gracilis (Celurus).....	498
Glyptoderma.....	476	gracilis (Daphnœus).....	771
Glyptodon.....	580, 581, 582	gracilis (Dinichthys).....	346
glyptodon (Holops).....	516	gracilis (Diplodus).....	266
glyptodon (Thoracosaurus).....	516	gracilis (Disodus).....	266
Glyptodontes.....	580	gracilis (Dittodus).....	266
Glyptodontia.....	580	gracilis (Domnina).....	671
Glyptodontidae.....	580	gracilis (Dryolestes).....	569
Glyptolepis.....	358, 359	gracilis (Ephippus).....	612
Glyptopomus.....	362	gracilis (Grallator).....	545
Glyptops.....	437	gracilis (Harpedactylus).....	545
Glyptosauridae.....	474	gracilis (Hemiacodon).....	794
Glyptosaurus.....	475	gracilis (Hesperornis).....	521
glyptus (Psammodus).....	284	gracilis (Homacanthus).....	329
Gnathorhiza.....	355	gracilis (Hyopodus).....	790
godmani (Tetracaulodon).....	709	gracilis (Hypsodus).....	790
gomphodus (Nimravus).....	781	gracilis (Lamna).....	303, 310
gomphoides (Cladodus).....	268	gracilis (Laosaurus).....	501
Gomphotherium.....	676	gracilis (Leptochœrus).....	657
Gonatodus.....	365	gracilis (Leptorocodon).....	672
Goniacodon.....	748	gracilis (Lestosauros).....	470
Goniiodus.....	287, 315	gracilis (Machairodus).....	778
Goniopholidæ.....	516	gracilis (Merycodonmus).....	672
Goniopholis.....	516	gracilis (Merycodonodon).....	666
Goniopoda.....	487	gracilis (Meshippus).....	612
Gonorhynchidæ.....	392	gracilis (Microsypus).....	791, 792
goodeanus (Ichthyodectes).....	385	gracilis (Notharctus).....	790
Gorgonichthys.....	345, 346	gracilis (Nyctodactylus).....	508

	Page.		Page.
gracilis (Nictosaurus)	508	grandis (Thinosaurus)	476
gracilis (Odontaspis)	303	grandis (Thoracosaurus)	515
gracilis (Oreodon)	666	grandis (Titanophis)	479
gracilis (Oreosaurus)	475	grandis (Triacodon)	753
gracilis (Orohippus)	612	granulata (Eurylepis)	396
gracilis (Orthacanthus)	264	granulata (Mecolepis)	396
gracilis (Paleoniscus)	367	granulatus (Holoptychius)	356
gracilis (Petalodus)	279	granulatus (Oracanthus)	332
gracilis (Platycarpus)	470	granulosus (Peltosaurus)	457
gracilis (Plectropterna)	549	Graphodon	500
gracilis (Pleuracanthus)	264	gratum (Hipparion)	620
gracilis (Plihippus)	618	gratum (Hippotherium)	620
gracilis (Ponerichthys)	346	Gravigrada	575
gracilis (Procamelus)	677, 678	gravis (Emys)	448
gracilis (Protamia)	381	gravis (Notomorpha)	448
gracilis (Protocamelus)	677	greenel (Palaeomytus)	323
gracilis (Pteranodon)	508	greenel (Rhynchodus)	323
gracilis (Ptilodus)	560	gregarius (Canis)	771
gracilis (Redfieldius)	370	gregarius (Cynodictis)	771
gracilis (Rhadinichthys)	367	gregarius (Galecynus)	771
gracilis (Sauroidichnites)	545	grinnellii (Crocodylus)	512
gracilis (Scapanorhynchus)	303	grœnlandica (Phoca)	786
gracilis (Scylliorhinus)	310	grœnlandicus (Pagophilus)	755
gracilis (Scyllium)	510	grœnlandicus (Rangifer)	636
gracilis (Smilodon)	778	grossiplicata (Janassa)	276
gracilis (Stylacodon)	569	grossiplicatus (Tanacodus)	276
gracilis (Typopus)	553	grossipunctatus (Leiodus)	296
gracilis (Viverravus)	754	Grues	527
gracilis (Xestops)	475	Gruidae	527
gracilis (Zetodon)	696	Gruiformes	527
Graculavus	519, 520, 533	Gruinæ	527
Graculus	533	Gruioidea	527
gradata (Dominina)	741	Gruioideæ	527
gradatus (Castor)	722	Grus	527
gradatus (Steneofiber)	722	Gryphodobatis	316
gradocostatus (Ctenacanthus)	327	Grypodon	408
Grallæ	526	gryphus (Crocodylus)	512
Grallator	539, 545	güntheri (Ceratodus)	356
grallipes (Pteropelyx)	503	Gulo	766
grandæva (Chelone)	443	gulo (Plesiosaurus)	456
grandæva (Chelonis)	443	gurileana (Janassa)	276
grandævus (Delphinapterus)	591	gurileana (Strigilina)	276
grandævus (Oligostimus)	459	gurileanus (Sagenodus)	354, 355
grandævus (Priscodelphinus)	591	gurleyana (Janassa)	276
grandævus (Puppigerus)	443	gurleyanus (Ctenodus)	354
grandævus (Tretosphys)	591	gurleyanus (Sagenodus)	354
grandiceps (Amphibamus)	411	gurleyi (Ctenacanthus)	327
grande (Tinoceras)	704	guttatus (Trionyx)	454
grandis (Apatosaurus)	483	guyotianus (Agriochoerus)	663
grandis (Brimosaurus)	459	guyotianus (Hyopotamus)	663
grandis (Chonespondylus)	463	guyotianus (Merycopater)	663
grandis (Cimoliasaurus)	459	guyotii (Desmatotherium)	625
grandis (Cladodus)	268	guyotii (Helaletes)	625
grandis (Deltodus)	292	Gypætidæ	535
grandis (Dinophis)	479	Gymnodontes	408
grandis (Discosaurus)	459	Gymnoptychus	720, 725
grandis (Eryops)	434	Gyracanthus	335
grandis (Hemipsalodon)	759	gyrinoides (Coecytinus)	416
grandis (Ichthyosaurus)	463	Gyrolepis	359
grandis (Loxolophodon)	705	Gyrosteus	371
grandis (Morosaurus)	483		
grandis (Ophiacodon)	434		
grandis (Ornithomimus)	494		
grandis (Palæophis)	479		
grandis (Prammodus)	284		
grandis (Sandalodus)	289		

H.

hadriana (Testudo)	421
Hadrianus	450
Hadrodus	373
Hadrohyus	671

	Page.		Page.
Hadrosauridæ	503	hastata (Dasyatis)	319
Hadrosaurus	500, 502, 503, 504	hastata (Oxyrhina)	306
Halecomorphi	378, 380	hastata (Trygon)	319
Halicorida	582, 584	hastilis (Oxyrhina)	306
Halicoridae	582	hatcheri (Protolambda)	692
halidanus (Dinophis)	479	hatcheri (Protoptychus)	730
halidanus (Palæophis)	479	hatcherii (Rhineura)	476
Halisaurus	468	Hatteria	460
Halitheriidae	582	hawkinsii (Delphinapterus)	591
Halitherium	582	haydeni (Ælurodon)	774
halli (Holoptychius)	358	haydeni (Amphicyon)	774
halli (Poebrotherium)	676	haydeni (Canis)	774
halli (Protomeryx)	676	haydeni (Emys)	448
Hallopidæ	494	haydeni (Epicyon)	774
Hallopoda	494	haydeni (Grus)	527
Hallopodidae	494	haydeni (Lepidotus)	377
Hallopus	494	haydeni (Leptictis)	739
halmodeus (Cocosteus)	346	haydeni (Palæolagus)	735, 736
halmodeus (Dinichthys)	346	haydenianus (Didymictis)	754
halocyon (Enchodus)	389	haydenianus (Dysganus)	506
Halodon	560, 561	haydenianus (Viverravus)	754
halophilus (Trionyx)	454	haysii (Elasmognathus)	628
hamatus (Anticheiropus)	539	haysii (Tapirus)	628
hamatus (Coryphodon)	694, 700	haysii (Tetracaulodon)	709
hamatus (Ichthyodectes)	385	hazenianus (Dryptosaurus)	488
hamatus (Labidosaurus)	429	hazenianus (Laelaps)	488
hamatus (Lambdodus)	271	hebraica (Bacina)	438
hamatus (Pariotichus)	429	heckmani (Acherontemys)	446
hamulus (Lambdodus)	271	Hectocampe	544
Haplacodon	633	Hedronchus	326
Haplistia	352	heilprinianus (Goniacodon)	748
haplocerus (Epiacoposaurus)	511	heilprinianus (Mioclenus)	748
Haploconus	694, 695, 696	heilprinianus (Trilosodon)	748
haplodon (Arctodus)	763	heinrichii (Edestus)	337
haplodon (Tremarectus)	763	Helagras	481
haplodon (Ursus)	763	Helaletes	625, 627
Haplolepis	366	Helaletidae	624
Haplomi	398	Helaletinae	624
hardingi (Hylopus)	546	Helcura	546
hardingi (Rhizodus)	360	Heleothrepta	410
hardingi (Strepsodus)	360	Heliobatis	319
Harelda	530	Heliodus	352
harlani (Basilosaurus)	587	Heliscomys	729
harlani (Bottosaurus)	514, 515	heloceras (Symborodon)	636
harlani (Crocodylus)	514	heloceras (Titanotherium)	636
harlani (Hydrarchus)	587	helocerus (Megaceratops)	636
harlani (Megalonyx)	579	Helodectes	429
harlani (Mylodon)	579	Helodontinae	284
harlani (Priscodelphinus)	591	Helodus	286, 293, 295
harlani (Zeuglodon)	587	Helohippus	611
Harlanus	688, 690	Helohydra	650
Harpacanthus	336	Helohyus	604, 650
Harpacodus	282	Helotherium	611, 612
Harpagmotherium	708	Hemiaeis	766
Harpalodon	761	Hemiaecodon	787, 794
Harpedactylus	545, 549	Hemibranchii	396
harpygia (Ornithochirus)	508	Hemicaulodon	583
harpygia (Pterodactylus)	508	hemiconus (Phenacodus)	604
harrisoni (Ctenacanthus)	328	Hemictenodus	354
hartshornianus (Amphicyon)	772	Hemiganidae	573
hartshornianus (Canis)	772, 773	Hemiganus	573, 574
hartshornianus (Daphœnus)	772	Hemipristis	313
hartwelli (Galeocerdo)	311	Hemipealodon	759
hassia (Galeocerdo)	311	Hemiptychodus	317
hastalis (Isurus)	306	hemispherica (Emys)	450
hastalis (Oxyrhina)	304, 306	hemispherica (Testudo)	450

	Page.		Page.
Hemipristis	313	Hexanchoides	300
Hemithleus	607, 695	Hexanchus	300
Hemitrypus	424	Hexodon	573
Heptacodon	651, 652	hians (Loxolophodon)	705
Heptanchus	300	hians (Paramys)	723
Heptodon	625	hians (Plesiartemys)	724
Heptranchias	300	hians (Prototomus)	752
Herbivora	601	hians (Pseudotomus)	723
Herodii	531	hians (Sinopa)	752
Herodiones	531	hians (Stypolophus)	752
Herpetotherium	570, 571	hians (Tinoceras)	705
hertzeri (Cladodus)	268	hians (Trichophanes)	404
hertzeri (Dinichthys)	346, 547	hians (Uintatherium)	705
hertzeri (Goniodus)	237	hiatidens (Anaptogonia)	728
hertzeri (Ponerichthys)	546	hiatidens (Arvicola)	728
hertzeri (Xenodus)	287	hiatidens (Microtus)	728
hesperium (Diceratherium)	644	hibberti (Megalichthys)	362
hesperius (Aphelops)	644	hieroglyphus (Arotus)	356
hesperius (Chænohyus)	659	hieroglyphus (Ceratodus)	356
hesperius (Dicotyles)	659	hildrethi (Listracanthus)	336
hesperius (Hypertragulus)	675	hilli (Pseudemys)	449
hesperius (Rhincoceros)	644	hillianus (Fells)	782
hesperius (Tayassu)	659	Hipparion	616, 619, 622, 795
Hesperocyon	771	hipparionyx (Phyllodus)	401
Hesperomyiæ	726	Hippidæ	606
Hesperomys	726, 727	Hippidion	618, 619
Hesperornidæ	521	Hippidium	618, 619
Hesperornis	521	Hippodon	619, 621
Hesperornithes	520	hippodus (Allomys)	718
Hesperornithidæ	521	hippodus (Meniscornys)	718
Hesperornioidea	521	hippodus (Protogaulus)	718
hesperus (Desmostylus)	583	Hippoidea	606
hesterna (Auchenia)	679	Hippopotamus	707, 708
hesternus (Camelops)	679	Hipposyus	611, 733
hesternus (Holomeniscus)	679	Hippotherida	606
Heteracanthus	332	Hippotherium	619, 620, 621, 622
Heterocercæ	365	Histiophoridæ	402
Heterodon	309	Histiophorus	402
heteroclitus (Ancyrops)	538	Holacanthodes	573
heteroclitus (Cetophis)	593	Holaspis	540
heteroclitus (Cricotus)	421	holbrelli (Colymbus)	523
heteroclitus (Sauroidichnites)	538	Holcodus	440, 465, 466, 469, 470, 471, 516
heterodactylum (Chirotherium)	542	holmesii (Colophonodon)	569
heterodactylum (Thenaropus)	542	holmesii (Myllobatis)	520
heterodon (Alligator)	513	holmesii (Phocodon)	569
heterodon (Carcharias)	307	holmesii (Squalodon)	569
heterodon (Carcharodon)	307	Holocephala	322
heterodon (Corax)	309	Holocephall	322
heterodon (Crocodylus)	513	Holomeniscus	679
heterodon (Cyclopidius)	670	Holonema	350
heterodon (Pitheciastes)	670	Holops	515
Heterodontidæ	298	Holoptychidæ	356
Heterodontoidæ	298	Holoptychius	344, 358, 359, 361
Heterodontoides	285	Holosaurus	471
Heterodontosuchus	515	Holostei	374
Heterodontus	299	holyokensis (Apatichnus)	540
heterodontus (Procamelus)	677	Homacanthus	329
heterodontus (Protolabis)	677	Homacodon	648, 649
heteroglyptus (Trionyx)	454	Homacodontidæ	648, 649, 650
heterolophus (Ctenodus)	354	homalorhamphus (Histiophorus)	402
heterolophus (Sagenodus)	354	homalorhamphus (Istiophorus)	402
heteropleurus (Hemipristis)	313	Homocamelus	677, 678
Heterostraci	339	Homogalax	627
hexagonata (Testudo)	451	Homocœsaurus	459
hexagonus (Piptomerus)	457	Homorhophus	446
Hexanchidæ	300	Homorophus	446

	Page.		Page.
homunculus (<i>Anaptomorphus</i>)	787	Hyænodontini	758
homunculus (<i>Onomys</i>)	787	hyænoidea (<i>Elurodon</i>)	774
hopei (<i>Lamna</i>)	302, 313	hyattianus (<i>Chriacus</i>)	745
hopei (<i>Odonaspis</i>)	302	hyattianus (<i>Toxolophus</i>)	745
hopkinsi (<i>Onychodus</i>)	363	hyattianus (<i>Protochriacus</i>)	745
Hoplichnus	546	Hybemys	448
Hoplocetus	555, 596	Hybocladodus	271
Hoplonchus	329	Hybodontidæ	267, 298
Hoplophoneus	778, 780	Hybodus	299
Hoplophoridae	580	hybridus (<i>Merycododon</i>)	666
Hoplophorus	580	hybridus (<i>Oreodon</i>)	666
Hoplopleuridæ	396	hybridus (<i>Petalodus</i>)	278
Hoplopygus	363	Hydrarchos	586, 587
hornei (<i>Cladodus</i>)	270	Hydrarchus	586, 587
horridum (<i>Holonema</i>)	350	hydrarchus (<i>Zeuglodon</i>)	587
horridus (<i>Aublysodon</i>)	489	Hydrargos	586
horridus (<i>Ceratops</i>)	498	hydrochaeris (<i>Hydrochaerus</i>)	734
horridus (<i>Crotalus</i>)	481	Hydrochelidon	525
horridus (<i>Deinodon</i>)	488, 489	Hydrochaerus	734
horridus (<i>Dinodon</i>)	488, 489	Hydrodamalidæ	584
horridus (<i>Episcoposaurus</i>)	511	Hydrodamalis	584
horridus (<i>Hyænodon</i>)	758	hyemalis (<i>Clangula</i>)	580
horridus (<i>Mosasaurus</i>)	466	hyemalis (<i>Harelda</i>)	530
horridus (<i>Triceratops</i>)	498	hylactor (<i>Cynodictis</i>)	771
horrificus (<i>Diplotodon</i>)	473	Hylerpeton	413
horrificus (<i>Tomodon</i>)	473	Hylerpetum	413
hortonensis (<i>Acrolepis</i>)	369	Hylonomidæ	411, 412
hospes (<i>Otolithus</i>)	408	Hylonomus	412, 413
hudsonianus (<i>Zapus</i>)	732	Hyloplexion	412
hudsonius (<i>Dipus</i>)	732	Hyloplexionidæ	412
hudsonius (<i>Jaculus</i>)	732	Hylopus	546
hudsonius (<i>Meriones</i>)	732	Hyodonta	692
hudsonius (<i>Zapus</i>)	732	Hyoganoides	574
huerfanensis (<i>Auchenia</i>)	679	hyognathus (<i>Telmatherium</i>)	632
huerfanensis (<i>Lama</i>)	679	hyognathus (<i>Palaeosyops</i>)	632
huerfanensis (<i>Oxyæna</i>)	757	Hyomeryx	665
humboldtii (<i>Mammut</i>)	710	Hyopomata	556
humboldtii (<i>Mastodon</i>)	710	Hyopotamidæ	651
humboldtii (<i>Pygopterus</i>)	367	Hyopotamus	652, 653
humboldtii (<i>Chlamydothierium</i>)	581	Hyops	660
humboldtii (<i>Chlamytherium</i>)	581	Hyopsodidæ	788
humboldtii (<i>Dibelodon</i>)	711	Hyopsodontidæ	788
humboldtii (<i>Mastodon</i>)	710, 712	Hyopsodus	606, 789, 790, 793
humerosum (<i>Elotherium</i>)	655	Hyotheriinae	656
humerosus (<i>Boöthærus</i>)	656	Hyotherium	656, 658
humilis (<i>Acrodus</i>)	299	Hypamia	330, 331
humilis (<i>Botanosaurus</i>)	513	hypantricus (<i>Cricotus</i>)	421
humilis (<i>Clupea</i>)	391	hyperborea (<i>Chen</i>)	530
humilis (<i>Crocodylus</i>)	513	hyperboreus (<i>Lobipes</i>)	527
humilis (<i>Diplomystus</i>)	391	Hypertragulidæ	674
humilis (<i>Limnonyx</i>)	630	Hypertragulus	674
humilis (<i>Palaeosyops</i>)	630	Hypasma	416
humphreysiana (<i>Plianchenia</i>)	680	Hyphepus	546
humphreysiana (<i>Plianchenia</i>)	680	Hypsodus	672
hunti (<i>Didelphis</i>)	571	hypoceras (<i>Cottus</i>)	406
hunti (<i>Didelphys</i>)	571	hypoceras (<i>Brontotherium</i>)	635
hunti (<i>Herpetotherium</i>)	571	hypoceras (<i>Symborodon</i>)	635
hunti (<i>Peratherium</i>)	571	hypoceras (<i>Titanotherium</i>)	635
huttoni (<i>Lamna</i>)	303	Hypocetus	596
huxleyi (<i>Tuditanus</i>)	415	Hypohippus	615
Hyæna	776	Hypomycteri	762, 769
Hyænidæ	776	Hypopnous	429
Hyænocyon	770	Hyposaurus	515, 516
Hyænodon	758	Hypostomata	339
Hyænodontidæ	756, 758	Hypotemnodon	773
Hyænodontinae	758	Hypotremi	315

	Page.		Page.
hypsacantha (Priscacara)	401	Iguanodontoides	500
hypsibata (Branta)	530	Iguanoides	474
hypsibates (Bernicla)	530	imbricarius (Anisodexis)	423
hypsibatus (Anser)	530	imbricarius (Basilemys)	445
Hypsibema	497	imbricarius (Compsemys)	445
Hypsiphodon	500	imitatus (Platyxystrodus)	290
Hypsirophidae	495	imitatus (Xystrodus)	290
Hypsirophus	488, 495, 496	immanis (Atlantosaurus)	484
Hypsoodus	790, 791	immanis (Ornithosaurus)	505
hypsoplepis (Elonichthys)	368	impar (Drepanodon)	471
Hypsorhina	477	impar (Lesticodus)	471
Hypsothinidae	476	impar (Morosaurus)	483
Hyrachyinae	638	impar (Morosaurus)	471
Hyrachyus	625, 626, 638, 640	Imparidigitata	607
Hyracodon	640	impennisi (Alca)	524
Hyracodontidae	638, 640	impennisi (Plautus)	524
Hyracodontinae	640	imperator (Elephas)	713
hyracoides (Tillotherium)	716	imperator (Elotherium)	655
Hyracops	606	imperator (Euelephas)	713
Hyracotheriidae	608	imperialis (Fells)	782
Hyracotheriinae	608	imperialis (Hyrachyus)	639
Hyracotherium	605, 608, 609, 610, 611, 612	implicatus (Hyrachyus)	638, 639
Hystericidae	732	inaequalis (Cholodus)	277
Hystericomorpha	732	inaequalis (Toxichnus)	553
Hystericops	733	inaequidens (Ellipcodon)	606, 746
Hystrix	733	inaequidens (Mioclanus)	746
hystrix (Listracanthus)	336	inaequidens (Tricentes)	746
I.		incedens (Chelonoides)	542
Icanodus	291	incisivus (Clepsydrops)	432
Ichnites	538	incisivus (Cyclopidius)	671
Ichthyecanthus	422	incisivus (Dimetrodon)	432
Ichthyodectes	379, 384, 399	incisivus (Ectocynodon)	428
Ichthyodectidae	383	incisivus (Pariotichus)	428
Ichthyodectinae	383	incisus (Cimolestes)	566
Ichthyodorulites	326	incisus (Cynocercus)	442
Ichthyopterygia	461	Incognitum	710
Ichthyornis	519, 520	inconditus (Platyxystrodus)	290
Ichthyornithes	519	inconditus (Xystrodus)	290
Ichthyornithidae	519	inconstans (Chomatodus)	280
Ichthyosauri	461	incrassatus (Chomatodus)	280
Ichthyosauria	461	incrassatus (Dryposaurus)	488
Ichthyosauridae	462	incrassatus (Edaphodon)	324
Ichthyosaurus	462, 463, 466	incrassatus (Ischyodus)	524
Ichthyosuchus	512, 513	incrassatus (Laelaps)	488
Ichthyotomi	263	incrassatus (Petalodus)	280
Ichthyotringa	397	incurvus (Diplodus)	267
Ietericus (Holecodus)	470	incurvus (Gyracanthus)	335
Ietericus (Lestosaurus)	470	incurvus (Megalichthys)	360
Ietericus (Liodon)	470	incurvus (Rhizodus)	360
Ietericus (Platecarpus)	470	incurvus (Thrinacodus)	267
Icteridae	537	index (Eohippus)	609
Icteyon	770	index (Epihippus)	609
Ictopsidae	738	index (Hyracotherium)	608, 790
Ictops	739	index (Orohippus)	609
Idahensis (Graculus)	533	index (Orotherium)	609
Idahensis (Phalacrocorax)	533	Indianensis (Canis)	775
Idahoensis (Phalacrocorax)	533	Indianensis (Colletosaurus)	542
Iguana	474	Indrodon	792
Iguanavus	474	inexpectata (Crocota)	783
Iguanavus (Chidastes)	467	inexpertatus (Fells)	783
Iguanidae	474	inexpertatus (Nimravus)	783
Iguanodon	502	infelix (Steropoides)	652
Iguanodontia	495	inflexus (Dactyiodus)	235
Iguanodontidae	501, 502	inflexus (Deltodopsis)	291
		inflexus (Mylocyprinus)	396

	Page.		Page.
inflexus (Polyrhizodus)	283	intermedius (Hyrachyus)	639
ingens (Brontotherium)	636	intermedius (Mesohippus)	614
ingens (Chimærichnus)	550	intermedius (Mesoreodon)	667
ingens (Elotherium)	655	intermedius (Miohippus)	614
ingens (Entelodon)	655	intermedius (Otolithus)	408
ingens (Loxolophodon)	705	intermedius (Palæolagus)	736
ingens (Menodus)	636	intermedius (Ponerichthys)	346
ingens (Ornithichnites)	540, 552	intermedius (Prothyraodon)	640
ingens (Ornithostoma)	508	intermedius (Pseudotheryptodus)	393
ingens (Pteranodon)	508	interpolatum (Hippidion)	619
ingens (Pterodactylus)	508	interpolatum (Hippidium)	619
ingens (Sauropus)	550	interpolatus (Pliohippus)	619
ingens (Steropezoum)	552	interruptum (Deltatherium)	751
ingens (Steropoides)	552	interruptus (Mioclenus)	751
ingens (Tinoceras)	705	interruptus (Polyptychodon)	587
ingens (Titanotherium)	635, 636	intrepidus (Drepanodon)	782
ingens (Tridentipes)	552	intrepidus (Fells)	782
ingens (Ulnatherium)	705	intrepidus (Pseudælorus)	781, 782
ingenuum (Hippotherium)	620	introvergens (Orthodactylus)	547
inornatus (Deltodus)	292	inversus (Chriacus)	745
inornatus (Gyracanthus)	335	inversus (Pentacodon)	745
inornatus (Manatus)	584	involuta (Arvicola)	723
inornatus (Trichechus)	584	involutus (Microtus)	728
insculpta (Clemmys)	449	involutus (Pitymys)	728
insculpta (Eurylepis)	366	Irishi (Glymmatacanthus)	331
insculpta (Mecolepis)	366	irregularis (Crommyodus)	406
insculpta (Testudo)	449	irregularis (Phacodus)	406
insculptus (Beryx)	402	isaaci (Helodectes)	429
Insectivora	737	Isaels	739
insectivora (Sinopa)	752	Ischyodus	324, 325
insectivorus (Stypolophus)	752	Ischypterus	375, 376
Insectores	537	ischypus (Cladodus)	269
insidiosus (Apheliscus)	792	Ischyrrhiza	393, 398
insidiosus (Prototomus)	792	Ischyrrhizidæ	398
insignis (Anaptomorphus)	787	Ischyromylidæ	723
insignis (Chomatodus)	280	Ischyromys	724, 725
insignis (Merychippus)	616	ischyros (Archelon)	440
insignis (Palæobatis)	280	ischyros (Protoetega)	440
insignis (Petalodus)	280	Ischyrosaurus	461
insignis (Plastomenus)	462	Ischyrotherium	461
insignis (Protohippus)	616	Isctolophus	627
insignis (Tridentipes)	552	islandica (Clangula)	530
insignis (Trimerorhachis)	420	islandica (Glaucionetta)	530
insignis (Washakius)	787	Isocampe	546
insolens (Achanodon)	654	isocelica (Oxyrhina)	306
insolens (Hoplophonus)	778	isodactylatus (Argoides)	540
insolltus (Pacculus)	727	isodactylum (Brontozoum)	539, 543, 550
insuetus (Homorhophus)	446	isodactylus (Anomæpus)	539
insuetus (Homorhophus)	446	isodactylus (Ornithoidichnites)	540
insuetus (Otolithus)	408	Isodectes	415, 428
insularis (Lembonax)	444	Isodelta	723, 729
Integer (Clastes)	377	isolomus (Pariotichus)	428
Integer (Lepisosteus)	377	isonesum (Hipparion)	620
intercostatus (Cladodus)	269	isonesum (Hippotherium)	620
intermedia (Pachyæna)	750	isonesum (Stylonus)	620
intermedium (Hylæpeton)	413	Isopholidæ	378
intermedius (Amynodon)	642	Isospondyli	383
intermedius (Anogmius)	393	Isotænia	325
intermedius (Anomæpus)	539	Istliophoridæ	402
intermedius (Chidastes)	467	Istliophorina	402
intermedius (Deltodus)	292	Istliophorus	402
intermedius (Dinichthys)	346	Isurus	306
intermedius (Elasmosaurus)	458	Ithacensis (Dipterus)	351
intermedius (Equis)	622	Ithygrammodon	674
intermedius (Hybocladodus)	271	Izacanthus	592

J.	Page.		Page.
jacksoni (Elephas)	713	kochii (Basilosaurus)	557
jacksoni (Eporeodon)	666	kochii (Missourium)	709
jacksoni (Eucrotaphus)	665, 666, 667	kochii (Tetracaulodon)	709
jacksoni (Eulephas)	713	kowalekianus (Hemithleus)	585
jacksoni (Oreodon)	665	kowalevskianus (Hemithleus)	695
jacksonii (Ancyropus)	558	kowalevskyanus (Hemithleus)	695
jacksonii (Palaeoniscus)	569		
jacksonii (Sauroidichnites)	558	L.	
Jaculina	752	labiatum (Poebrotherium)	675
Jaculus	752	labiatus (Catoctomus)	394
Janassa	275, 276, 277	Labiodon	429
Janassina	275	Labodus	285
janevalli (Ptychodus)	317	labracoides (Mioplosus)	405
janevalli (Sporetodus)	317	Labridæ	400
janewayii (Ptychodus)	317	Labroidea	400
jarrovi (Pelycodus)	790	Labrosauridæ	457
jarrovi (Prototomus)	790	Labrosaurus	489, 490
jarrovi (Tomitherium)	790	labrosus (Merychippus)	617
jeanési (Emys)	448	labrosus (Protohippus)	617
jeanésianus (Emys)	448	Labrus	405
jeansii (Lytoloma)	442	Labyrinthodon	423
jeansii (Propleura)	442	Labyrinthodontes	417
jeffersonii (Mastodon)	709	Labyrinthodontia	410, 417, 423
jeffersonii (Megalonyx)	577	Lacertilla	473
jeffersonii (Megatherium)	577	Lacertina	474
jemezianum (Aceratherium)	646	lacertoides (Corvipes)	542
jemezianus (Aphelops)	646	lacertosus (Delphinapterus)	591
jemezianus (Rhinoceros)	646	lacertosus (Priscodelphinus)	591
jexi (Cephalaspis)	341	lacertosus (Tretosphyx)	591
jexi (Protodus)	266	lachrymalis (Plastomenus)	452
johnstoni (Astrodon)	484	lacovianus (Platyomus)	369
jordanianus (Hemitrypus)	424	lacovianus (Sagenodus)	354
josephi (Mesocyon)	773	lacustre (Dinoceras)	705
josephi (Temnocyon)	773	lacustre (Tinoceras)	705
jugosus (Myliobatis)	320	lacustre (Uintatherium)	705
jugosus (Sagenodus)	354	lacustris (Diplodocus)	486
jugum (Loxolophodon)	705	lacustris (Loxolophodon)	705
jugum (Tinoceras)	705	lacustris (Paronychodon)	490
jugum (Uintatherium)	705	lacustris (Procamelus)	677
junior (Palaeosyops)	630	lacustris (Protagras)	479
		lacustris (Rhabdofario)	392
		Lelaps	487, 488
		lævicornis (Cariacus)	684
		lævicornis (Dama)	684
		lævidens (Limnonyx)	630
		lævidens (Palaeosyops)	630, 631
		lævidens (Tamias)	720
		lævifrons (Dryptosaurus)	488
		lævifrons (Lelaps)	488
		lævigatus (Otolithus)	408
		lævis (Compescanthus)	265
		lævis (Helodus)	286
		lævis (Hyphasma)	416
		lævis (Leiodon)	471
		lævis (Liodon)	471
		lævis (Macrosaurus)	471, 472
		lævis (Microdus)	313
		lævis (Pappichthys)	381
		lævis (Parameryx)	674
		lævis (Pleuracanthus)	265
		lævis (Telacodon)	506
		lævissimus (Galeocerdo)	311
		lævissimus (Pleuracanthus)	266
		lævissimus (Sandalodus)	239, 242
		Lagomorpha	735
		Lagomyidæ	735

	Page.		Page.
Lagomys.....	735	laticeps (Cephalaspis).....	341
lagophagus (Bunelurus).....	767	laticeps (Dinoceras).....	703
lagophagus (Plesioegale).....	767	laticeps (Diracodon).....	496
Lama.....	678	laticeps (Limnohyops).....	630
Lambdodus.....	270	laticeps (Merycocherus).....	668
lambdoides (Entoptychus).....	731	laticeps (Limnohyus).....	630
Lambdotheriidae.....	629	laticeps (Octolomus).....	703
Lambdotheriinae.....	629	laticeps (Palaeosyops).....	630
Lambdotherium.....	612, 629, 631	laticeps (Paroceras).....	703
Lamellirostres.....	528	laticeps (Uintatherium).....	703
laminatus (Leuciscus).....	396	laticolle (Scapherpeton).....	424
laminatus (Oligobella).....	396	laticollis (Apatosaurus).....	485
laminatus (Squalius).....	396	laticunea (Testudo).....	451
Lamna.....	302, 304, 305, 306, 310, 313	laticuneus (Diacyodexis).....	790
Lamna.....	301	laticuneus (Hyopodus).....	790
Lamnidae.....	301	laticuneus (Phenacodus).....	609, 790
Lamninae.....	302	latidens (Bathmodon).....	699
Lamnodus.....	359	latidens (Canis).....	771
Lamnoidea.....	301	latidens (Coryphodon).....	699
Lamnoidea.....	301	latidens (Cynodontomys).....	788
Lamnoidei.....	301	latidens (Diphriaea).....	324
lamnoides (Cladodus).....	269	latidens (Edaphodon).....	324
lanceolata (Lamna).....	305	latidens (Galecynus).....	771
lanceolatus (Carcharias).....	307	latidens (Galeocerdo).....	311
lanceolatus (Carcharodon).....	307	latidens (Galeus).....	311
lanceolatus (Otodus).....	305	latidens (Helaletes).....	627
lancifer (Megalichthys).....	360	latidens (Hylonomus).....	412
lancifer (Rhizodus).....	360	latidens (Isctolophus).....	627
lanciformis (Carcharodon).....	308	latidens (Limnofelis).....	757
lanciformis (Saurocephalus).....	385, 386	latidens (Nothocyon).....	771
Langunculapex.....	546	latidens (Oreocyon).....	757
lanius (Mesonyx).....	750	latidens (Patriofelis).....	757
lanius (Synoplotherium).....	750	latidens (Tilliotherium).....	716
Leodon.....	570	latidentatus (Canis).....	775
Leopithecus.....	792	latidentatus (Vulpes).....	775
Leopteryx.....	518	Latifrons.....	690
Leornis.....	531	latifrons (Agriochcerus).....	663
Leosauridae.....	501	latifrons (Bison).....	688, 689
Leosaurus.....	501	latifrons (Bos).....	689
laqueatus (Edaphodon).....	324	latifrons (Lestosauros).....	470
laqueatus (Eumylodes).....	324	latifrons (Platecarpus).....	470
laqueatus (Megalonyx).....	577, 579	latifrons (Syllaemus).....	399, 796
laramiense (Cimoliasaurus).....	459	latifrons (Taurus).....	689
Lari.....	525	latifrons (Uintatherium).....	702
Laridae.....	525	latilabiata (Emys).....	448
lariformis (Hydrochelidon).....	525	latimentum (Pachyrhizodus).....	388
Larinae.....	525	latimolis (Polymastodon).....	563
Laroides.....	525	latior (Deltodus).....	292
Laroides.....	525	latipes (Bathmodon).....	699
lartetianum (Odobenotherium).....	784	latipes (Coryphodon).....	699
Larus.....	525	latipinnis (Polycotylus).....	457
lata (Glyptolepis).....	358	latiradix (Rhabdosteus).....	593
lata (Sphyrna).....	314	latiremis (Toxochelys).....	442
lata (Testudo).....	450	latirostris (Manatus).....	584
lateralis (Aublysodon).....	489	latispinosus (Climatus).....	274
lateralis (Deinodon).....	489	latispinosus (Ctenacanthus).....	274
lateralis (Leptonyx).....	547	latispinus (Lestosauros).....	470
laterigerus (Edaphodon).....	324	latispinus (Liodon).....	470
laterigerus (Ischyodus).....	324	latispinus (Platecarpus).....	470
latibuccatus (Diadectes).....	427	latissimus (Carcharodon).....	308
latibuccatus (Empedias).....	427	latissimus (Ptychodus).....	318
latibuccatus (Empedocles).....	427	latithorax (Sauropleura).....	419
laticaudata (Testudo).....	451	lativertebralis (Emys).....	448
laticaudus (Liodon).....	472	latrans (Canis).....	775
laticaudus (Tylosaurus).....	472	latum (Tinoceras).....	705
laticeps (Alloodon).....	557	latum (Uintatherium).....	705

	Page.		Page.
latus (Amphicelias)	486	lenticularis (Semionotus)	375
latus (Anchyropoda)	395	lenticum (Elotherium)	650
latus (Chitinodus)	293	lentus (Allacodon)	557
latus (Cochliodus)	293	lentus (Baropus)	541
latus (Dactyiodus)	283	lentus (Barosaurus)	485
latus (Diploodus)	266	lentus (Graculavus)	520
latus (Disodius)	266	lentus (Helohyus)	650
latus (Dittodus)	266	lentus (Ichthyornis)	520
latus (Gampsacanthus)	336	lentus (Morosaurus)	483
latus (Glyptolepis)	358	lentus (Nothodon)	428
latus (Holoptychius)	358	lentus (Oreosaurus)	475
latus (Laguncularia)	546	lentus (Phenacodus)	650, 657
latus (Leucus)	395	lentus (Thinochys)	657
latus (Loxolophodon)	705	lentus (Tinochys)	657
latus (Palaeoniscus)	375, 376	lentus (Xestops)	475
latus (Palaeocineus)	497	Lepidopleuridae	572
latus (Polyrhizodus)	283	Lepidosauria	564
latus (Psephodus)	288	Lepidosiren	553
latus (Rutilus)	395	Lepidosirenidae	553, 555
latus (Semionotus)	376	Lepidosteidae	574, 576
latus (Torosaurus)	499	Lepidosteini	574, 576
leae (Saurocephalus)	386	Lepidosteoides	574
leali (Belodon)	510	Lepidosteus	576
leali (Clepsidra)	510	Lepidostones	574
leali (Phytosaurus)	510	Lepidotidae	574
leanus (Saurocephalus)	386	Lepidotus	572, 574, 577
leanus (Saurodon)	386	lepidus (Eurycodon)	741
lecontei (Eleatus)	337	lepidus (Tinodon)	567
lecontei (Sigmogomphus)	722	lepidus (Tinosaurus)	476
lecracanthus	336	lepis (Vaticinodus)	290
Lefalophodon	703, 704, 706	Lepisosteidae	576
leidianum (Ulnatherium)	702	Lepisosteus	576
leidyanum (Æluotherium)	778	leptopis (Pachyrhizodus)	588
leidyanum (Elotherium)	656	Leporidae	735
leidyanus (Ammodon)	656	leporinum (Tricium)	736
leidyanus (Palaeoniscus)	367	leporinus (Palaeolagus)	736
leidyanus (Patriofelis)	778	Lepospondyli	110
leidyanus (Rhadinichthys)	367	Leptacanthus	530
leidy (Bothriolepis)	344	leptacanthus (Eucrotaphus)	666
leidy (Cochliodus)	294	Leptacanthium	643
leidy (Delphinodon)	591	Leptareus	764
leidy (Megalonyx)	578	Leptauchenia	670, 672, 674
leidy (Merycocherus)	668	Leptecodon	397
leidy (Myliobatis)	320	Leptichthys	392
leidy (Venustodus)	287	Leptictide	738
Leidyotherium	636	Leptictis	739
Leiodon	471, 472	leptocentrum (Cetotherium)	509
Leiodus	296	leptocentrus (Eschrichtius)	509
Lembonax	444	leptocephalus (Clepsydrops)	431
lemolinianus (Hyopsodus)	790	leptocephalus (Diopcus)	451
lemur (Canis)	772	leptocephalus (Hyænodon)	759
lemur (Galacynus)	772	Leptocheridae	656
lemur (Nothocyon)	772	Leptochærus	657, 792
Lemuravidae	788	leptodactylum (Spheropezium)	552
Lemuravus	789	leptodactylus (Spheropezopus)	552
Lemures	786	leptodactylus (Thenaropus)	552
lemurinum (Menotherium)	792	leptodactylus (Tricnopus)	553
lemurinus (Leptochærus)	792	leptodirus (Camarasaurus)	486
Lemuroidea	786	leptodon (Carcharodon)	308
Lemuroidei	786	leptodon (Oxyrhina)	306
lemuroidea (Mioclenus)	606	leptodus (Paramys)	724
lenis (Dicotyles)	659	leptodus (Plesiartemys)	724
lennicorne (Ceratopetion)	414	leptodus (Thinosaurus)	476
lenticularis (Ischypterus)	375	leptogamus (Caulodon)	484
lenticularis (Merychippus)	617	leptognathus (Pachyæna)	749
lenticularis (Protophippus)	617	leptognathus (Dissacus)	749

	Page.		Page.
leptognathus (Pachyrhizodus).....	388	limatululus (Ctenoptychius).....	281
leptognathus (Procamelus).....	678	limax (Helodus).....	287
Leptomerycinæ.....	671	limbatus (Clepsydrope).....	431
Leptomeryx.....	671	limbatus (Diplocaulus).....	416
leptomitus (Trionyx).....	454	limbatus (Embolophorus).....	431
Leptomylus.....	325	Limicolæ.....	586
leptomylus (Didymictis).....	755	limitaris (Icanodus).....	291
leptomylus (Viverravus).....	755	limitaris (Tomodus).....	291
leptonyx (Morotherium).....	580	Limnocyon.....	751, 752, 755
Leptonyx.....	547	Limnofells.....	757
Leptophractus.....	354, 419	Limnohyops.....	630
leptophrys (Pleurolicus).....	731	Limnohyus.....	630, 631
leptops (Mephitica).....	766	Limnophis.....	430
leptopis (Pachyrhizodus).....	388	Limnopus.....	547
leptopterus (Glyptolepis).....	359	Limnosaurus.....	514
Leptoreodon.....	672	Limnotheriidae.....	788
leptorhinus (Platygonus).....	661	Limnotherium.....	788, 789, 791
leptorhynchus (Merychys).....	669	lincolni (Dinichthys).....	347
leptosteus (Bubo).....	536	lincolni (Ponerichthys).....	347
leptostomus (Megalonyx).....	578	lindahlhi (Aphelichthys).....	395
Leptostyrax.....	304	linearis (Orthodactylus).....	547
Leptotrachelus.....	397	linearis (Phlegethontia).....	411
Leptotragulinae.....	674	linearis (Plectropterna).....	549
Leptotragulus.....	674	lineata (Eurylepis).....	367
lepturus (Belodon).....	510	lineata (Mecolepis).....	367
lepturus (Coelacanthus).....	364	lineatus (Haploconus).....	694
lepturus (Phytosaurus).....	510	lineatus (Ischypterus).....	375
lepturus (Trichiurus).....	403	lineatus (Oracanthus).....	334
Lepus.....	736	lineatus (Platyodus).....	290
leslianus (Prochonia).....	438	lineatus (Rhadiniichthys).....	367
leslianus (Taphrophysa).....	438	lineatus (Sardinius).....	391
lesleyi (Heliodus).....	352	lineatus (Semionotus).....	375
lesleyi (Palædaphus).....	352	lineolatus (Adocus).....	437
Lesticodus.....	471	lineolatus (Compsemys).....	437
Lestophis.....	480	lineolatus (Leptophractus).....	419
Lestornis.....	521	lineopunctatum (Ceraterpeton).....	414
Lestosaurus.....	469, 470	linguæformis (Strigilina).....	276
lestrio (Portheus).....	384	lingulifer (Petalodus).....	278
lestrio (Xiphactinus).....	334	linguliformis (Janassa).....	276
leucas (Delphinapterus).....	594	Liodon.....	467, 470, 471, 472, 473
Leuciscus.....	395, 396	liodon (Crocodylus).....	518
leucopotamicus (Trionyx).....	454	liodontus (Clidastes).....	467
leucopus (Hesperomys).....	726	Liodus.....	296
leucopus (Peromyscus).....	726	Liognathus.....	345
leucopus (Vesperimus).....	726	liolophus (Allomys).....	719
leucopus (Vesperomys).....	726	liolophus (Meniscomys).....	719
leucosteus (Phlaocyon).....	765	liops (Choneziphius).....	597
Leucus.....	396	liops (Priscacara).....	401
Leurocephalus.....	631	Lipodectes.....	745, 761
levatus (Cyprinodon).....	404	lippincottianus (Canis).....	771
levatus (Eriasmatopterus).....	404	lippincottianus (Cynodictis).....	771, 772
Leviathan.....	707, 709	lippincottianus (Galecynus).....	771
levis (Ctenodus).....	352	liratus (Chitinodus).....	298
levis (Dipterus).....	352	lisbonensis (Empo).....	367
levis (Lamna).....	304	Lisgodus.....	281
levis (Otodus).....	304	Lispognathus.....	345
levisanus (Goniacodon).....	748	Listracanthus.....	336
levisanus (Mioclenus).....	748	Lithophis.....	479
levisanus (Trilodon).....	748	litoralis (Palæotriringa).....	527
levisiensis (Cimolichthys).....	596	litoralis (Passalacodon).....	740
ligonia (Testudo).....	461	littoni (Ctenacanthus).....	328
ligoniformis (Desmiodus).....	297	littoni (Deltodus).....	292
lilleyi (Oestophorus).....	337	littoni (Polyrhizodus).....	283
lilleyi (Sphenophorus).....	337	littoralis (Allopus).....	538
lima (Trionyx).....	454	littoralis (Dinopis).....	479
limatululus (Ctenopetalus).....	281	littoralis (Helcura).....	546

	Page.		Page.
littoralis (Palaeophis)	479	Lophiotherium	611, 612, 793
littoralis (Palaeotringa)	527	Lophobranchii	396
lobatus (Coryphodon)	698, 699	Lophocetus	590
lobatus (Dactyiodus)	283	Lophodus	296, 296
lobatus (Phalaropus)	527	Lophodytes	529
lobatus (Polyrhizodus)	283	Loricata	508, 575, 580
Lobipes	527	Loricati	506
Lobodon	785	loricatum (Platystegos)	418
lobulatus (Pelycletis)	766	loriformis (Chomatodus)	280
lockingtonianus (Eumys)	727	loriformis (Petalodus)	280
lockingtonianus (Pacifculus)	727	loripes (Ornithopus)	552
lockwoodii (Plesiosaurus)	456	loripes (Steropoides)	562
lockwoodii (Taphrosaurus)	456	lotor (Procyon)	764
lœvil (Orotherium)	610	lotor (Ursus)	764
lœvil (Pliolophus)	610	lovianus (Psammodus)	264
logani (Hylopus)	546	lowii (Desmatochelys)	443
lomas (Bathmodon)	699	lowii (Portheus)	384
Lomvia	521	lowii (Xiphactinus)	384
longævus (Euphanerops)	341	Loxodon	712
longicaudatus (Diplurus)	364	loxodon (Eumys)	727
longicaudus (Notharcus)	649	loxodon (Hesperomys)	727
longicaudus (Pantolestes)	649	loxodon (Megalonyx)	578
longiceps (Camelomeryx)	672	loxodon (Peromyscus)	727
longiceps (Hadrosaurus)	504	Loxolophodon	697, 700, 703, 704, 705, 706
longiceps (Loxolophodon)	706	Loxolophus	745
longiceps (Pteranodon)	508	loxonyx (Brontozoum)	544
longiceps (Tinoceras)	706	loxostyla (Sula)	552
longiceps (Trachodon)	504	lucare (Dinoceras)	708
longiceps (Uintatherium)	705	lucare (Uintatherium)	763
longicollis (Ccelophysis)	493	lucaris (Allosaurus)	489
longicollis (Ccelurus)	493	lucaris (Labrosaurus)	489
longicollis (Tanystropheus)	493	lucaris (Taxymys)	721
longicrista (Anchitherium)	614	lucaris (Uintornis)	631
longicristalis (Meshippus)	614	lucasanus (Tichosteus)	491
longicristalis (Miohippus)	614	lucasi (Dittodus)	266
longidens (Mylocyprinus)	396	lucasil (Amphicytulus)	516
longidentatum (Hylæpeton)	413	lucasil (Gonlopholis)	516
longifrons (Ceterhinops)	590	lucasil (Pedlocates)	534
longifrons (Eporeodon)	667	Lucidæ	308
longimana (Megaptera)	600	lucius (Alligator)	514
longinuchus (Taphrosphys)	438	lumpus (Cyclopterus)	407
longipes (Aceratherium)	646	lunatus (Diplodon)	561
longipes (Aphelops)	646	lunatus (Meniscœsus)	561
longipes (Colodon)	626	lunatus (Ptilodus)	561
longipes (Meshippus)	626	lunulatus (Psephodus)	288
longipes (Plectropus)	549	lupina (Oxyæna)	757
longipes (Rhinoceros)	646	lupus (Canis)	774, 775, 776
longipes (Sauroidichnites)	549	luscus (Gulo)	768
longipes (Sauropleura)	415	luscus (Ursus)	768
longipes (Tuditanus)	415	Lutra	768
longiplinnis (Leptotrachelus)	397	Lutricetis	768, 769
longirostris (Edaphodon)	524	Lutrine	768
longirostris (Eschatus)	680	Lutrin	768
longirostris (Ischyodus)	324	luxatus (Colodon)	626
longirostris (Mastodon)	711	lycopotamica (Lutra)	769
longirostris (Palæosyops)	631	lycopotamicus (Lutricetis)	769
longirostris (Ziphilus)	597	lydekkerianus (Mioclænus)	606
longispinis (Pterodactylus)	461	lydekkerianus (Protagonodon)	606
longispinus (Rhabdopelix)	461	lyelli (Hylonomus)	412
longulus (Proballostomus)	394	lyelli (Ornithoidichnites)	544
longus (Diplodocus)	486	lyelli (Pellon)	411
longus (Mioplosus)	405	lyelli (Raniceps)	411
Lophodon	611, 624, 625, 626, 628, 632, 639	lyellianus (Ethiopus)	544
Lophiodontidæ	624	lyellianus (Amblonyx)	544
Lophodontinæ	624	lyellianus (Pulicopus)	544
Lophodontoidæ	624	lyellii (Lamna)	306

	Page.		Page.
Lynx	783	macrospendylus (Zeuglodon)	587
Lysopteri	365	macrostegus (Merycochærus)	668
Lysorhophus	433	macrota (Lamna)	305
Lysorophus	433	macrotus (Otodus)	305
Lytoloma	441, 443, 796	macrura (Dictyopyge)	370
Lytolomidae	440	macrurus (Catopterus)	370
		macrurus (Molgophis)	412
M.		madisonius (Palæomeryx)	682
maccoyanus (Erismacanthus)	335	madisonius (Procamelus)	678
Macelognatha	505	magister (Myliobatis)	520
Macelognathidae	505	magister (Neotoma)	727
Macelognathus	505	magister (Sagenodus)	355
Macheracanthus	331	magna (Notamphibia)	547
Machærius	531	magna (Sphyrna)	314
Machærodine	777	magnicaudatus (Crosopholis)	372
Machærodontinae	777	magnicornis (Diplocaulis)	416
Machærodus	777, 778, 779, 780, 781	magnificus (Cladodus)	268, 269
Machairodinae	777, 781	magnificus (Gyracanthus)	385
Machairodontinae	777	magnus (Cimoliasaurus)	456, 459
machilis (Alces)	685	magnus (Cyphornis)	582
Machairodus	777, 778, 779, 780, 781	magnus (Discosaurus)	459
macisaacii (Bathychilodus)	270	magnus (Hydrochærus)	734
macisaacii (Phecodus)	270	magnus (Trihamus)	558
macconnellii (Amelurus)	383	major (Agriochærus)	664
Macrepistius	378	major (Ammosaurus)	491
macrocephalus (Agriochærus)	663	major (Anchisaurus)	491
macrocephalus (Camelops)	679	major (Anomæpus)	539
macrocephalus (Coloreodon)	663	major (Auchenia)	678
macrocephalus (Holomeniscus)	679	major (Dinictis)	780
macrocephalus (Physeter)	595	major (Dinictis)	780
macrodaetylata (Platypterna)	540	major (Eporeodon)	667
macrodaetylatus (Argoides)	540	major (Equis)	622
macrodaetylatus (Ornithoidichnites)	540	major (Eurolaphus)	663, 667
macrodon (Diastichus)	395	major (Hyræodon)	641
macrodon (Galera)	767	major (Lama)	678
macrodon (Galletis)	767	major (Leptauchenia)	670
macrodon (Putorius)	767	major (Macheracanthus)	331
macromus (Cocosteus)	344	major (Merychius)	669
Macropetalichthyidae	349	major (Merycoidodon)	667
Macropetalichthys	349	major (Mosasaurus)	465
Macrophoca	589	major (Oreodon)	667
macropomus (Megalichthys)	362	major (Orodus)	295
macropomus (Parabatrachus)	362	major (Orohippus)	610, 611
macrops (Choneziphius)	597	major (Palæosyops)	631
macrops (Euchærus)	660	major (Pliauchenia)	678
macrops (Proroziphius)	597	major (Pliolophus)	611
Macropterna	544, 548, 550	major (Procamelus)	678
macropternus (Phenacodus)	604	major (Prospiraxis)	338
macropterus (Amblypterus)	368	major (Saniwa)	475
macropterus (Elonichthys)	368	major (Sphyræna)	400
macropterus (Ischypterus)	375	major (Spiraxis)	358
macropterus (Palæoniscus)	375	major (Teleoceras)	646
macropterus (Rhabdolepis)	368	major (Trigonodus)	292
macropus (Dryptosaurus)	488	maius (Aceratherium)	647
macropus (Graculus)	533	malacorhinum (Aceratherium)	646
macropus (Laelaps)	533	malacorhinum (Peraceras)	646
macropus (Phalacrocorax)	533	malacorhinum (Teleoceras)	646
macrorhiza (Lamna)	303	malacorhinus (Aphelops)	646
macrorhynchus (Bottosaurus)	514	malaris (Indrodon)	792
macrorhynchus (Crocodylus)	514	Mallotus	392
Macrosaurus	467, 471, 472, 473	mamillaris (Ovis)	687
Macrosemidae	378	Mammalla	563
Macrosemius	378	mammifer (Leptomeryx)	671
macrospendyla (Amia)	381	mammilaris (Trionyx)	454
Macrospendylus	468	mammilaris (Orodus)	295
macrospendylus (Clepsydræ)	431	mammilaris (Ptychodus)	318

	Page.		Page.
Mammut	707	matutinus (Aphelops)	646
Mamonteum	708	matutinus (Rhinoceros)	646
Manatida	583	maxillaris (Parabatrachus)	362
Manitida	583	maxillaris (Megalichthys)	362
Manatus	583, 589	maximilianus (Mosasaurus)	465, 466
manatus (Trichechus)	584	maximum (Paleotherium)	636
mandibularis (Anisonchus)	695	maximum (Titanotherium)	636
mandibularis (Mioclenus)	695	maximus (Eusodon)	646
mandibularis (Pygopterus)	367	maximus (Felis)	793
manigauli (Dioplotherium)	583	maximus (Mastodon)	708
manitobensis (Lamna)	303	maximus (Mosasaurus)	466
manni (Agassichthys)	349	mayi (Ctenacanthus)	328
manni (Macropetalichthys)	349	Mazama	682
Manospondylus	500	Mazodus	265
Manta	321	meandrinus (Elurodon)	774
mantelli (Isurus)	306	Mecolepis	366, 367
mantelli (Lamna)	306	Mecraspedota	452
mantelli (Oxyrhina)	306	media (Amia)	381
Manteoceras	632	media (Protamia)	381
manteoceras (Manteoceras)	632	media (Plianchenia)	678
manteoceras (Paleosyops)	632	medius (Ptilodus)	559
Manteodon	697, 700	mediatlanticus (Diaphorocetus)	566
Mantida	321	mediatlanticus (Hypocetus)	566
Mareca	589	mediatlanticus (Paracetus)	596
marginale (Herpetotherium)	571	medium (Brontotherium)	635
marginale (Peratherium)	571	medius (Antrodemus)	489
marginalis (Didelphis)	571	medius (Camposaurus)	501
marginalis (Didelphys)	571	medius (Clidastes)	467
marginalis (Embassia)	571	medius (Ctenopetalus)	281
marginatus (Cepodus)	285	medius (Ctenoptychius)	281
marginatus (Coryphodon)	699	medius (Labrosaurus)	489
marginatus (Labodus)	286	medius (Merychius)	669
marila (Athyia)	580	medius (Procamelus)	678
marila (Fullgula)	530	medius (Protohippus)	616
marnochii (Cistudo)	449	medius (Titanops)	635
marnochii (Terrapene)	449	megacephalus (Eryops)	422
Marracanthus	329	Megaceratops	633, 634, 637
marshi (Leptoreodon)	672	Megacerops	633, 637
marshi (Archelon)	440	Megadactylus	491
marshi (Canis)	776	Megalichthyidae	359, 362
marshi (Colosteus)	414	Megalichthys	354, 359, 362
marshi (Ctenacanthus)	327	Megalneusaurus	457
marshi (Ischypterus)	375	megalodon (Carcharias)	306
marshi (Osteocephalus)	414	megalodon (Carcharodon)	308
marshi (Ptycholepis)	378	megalodus (Aceratherium)	646
marshi (Ptyonius)	414	megalodus (Aphelops)	646
marshi (Semionotus)	375	megalodus (Psittacotherium)	574
Marsupialia	563	megalodus (Rhinoceros)	646
Marsupialia	563	Megalomeryx	679
marsupialis (Didelphys)	571	Megalonix	577, 578
marsupialoides (Cuniculoides)	543	Megalonychia	575
Martes	767, 768	Megalonyx	577, 578, 579
martini (Ptychodus)	318	megalophysum (Cetotherium)	569
marylandicus (Crocodylus)	513	megaloporus (Piptomerus)	457
massetericus (Didymictis)	755	megalops (Isodectes)	428
massetericus (Viverravus)	755	megalops (Pariotichus)	428
Masticura	317	Megalosauria	457
Mastodon	707, 708, 709, 710, 711, 712, 714	Megalosauridae	487, 488
Mastodontsauri	423	Megalosaurus	487, 488, 490, 493, 494
Mastodontosauria	423	Megalotheriidae	575
Mastodontosauridae	423	Megalotherium	576
Mastodontosaurus	423	megalotis (Carcharias)	307
mastodontoides (Tapirus)	708	megalotis (Carcharodon)	307
mastodontoides (Tetracaulodon)	708	Megapleuron	593
mastodontoides (Tapirus)	708	Megaptera	599, 600
matutinum (Aceratherium)	646	megarhinum (Telmatherium)	632

	Page.		Page.
megarhinum (Telmatotherium)	631, 632	Mesogaulus	721
megarhinus (Palaeosyops)	632	Mesohippus	612, 613, 614, 617, 626
Megatheriidae	575	Mesonychidae	747, 749
Megatherium	576, 714	Mesonychinae	749
megaulax (Emys)	448	Mesonychini	749
Megencephalon	769	Mesonyx	750
Megencephalum	769	Mesodon	597
Megistosauros	595	Mesoplacentalia	563
Meleagrididae	534	Mesoplodon	597
Meleagrinae	534	mesops (Trimerorhachis)	420
Meleagris	534	Mesoreodon	667
Meles	765	Mesotapirus	626
Melidae	765	Mesoteras	600
Melinae	765	Metalophodon	697, 698, 700
Melini	765	Metamosauros	434
Menacouon	568	Metamynodon	642
Meniscoessus	490, 560	Metatheria	563
Meniscomys	718, 719	Metopocetus	596
Meniscotheriidae	605	metsiacus (Pantolestes)	649
meniscus (Miocænus)	747	metsiacus (Trigonolestes)	649
Meniscoterium	605, 606	meyeri (Otolithus)	409
Menodontidae	629	Miacidae	759
Menodus	633, 634, 635, 636, 637	Miacis	748, 752, 759, 760, 761
Menops	636, 637	Microbrachidae	415
Menotherium	792	Microclenodon	748
mentale (Amyzon)	395	Microconodon	556
mentalis (Antiacodon)	793	Microdon	373
mentalis (Sarcolemur)	793	Microdus	313
mento (Delphinodon)	591	microdus (Edaphosaurus)	432
mento (Squalodon)	591	microdus (Naosaurus)	432
mephitis (Mephitis)	766	microdus (Oreosaurus)	475
Mephitinae	765	microdus (Xestops)	475
Mephitis	766	microglypha (Zygoramma)	445
mercerii (Felis)	778, 783	microlepidotus (Glyptolepis)	559
mercerii (Machærodus)	778	micromus (Liodon)	472
mercerii (Machairodus)	778	micromus (Tylosaurus)	472
mercerii (Smilodon)	778	micromus (Rhinosaurus)	472
mercerii (Uncia)	778, 783	microphthalmus (Zatrachys)	422
mercurii (Deltodus)	292	microporus (Pliomerus)	457
Mergus	529	Micropteron	597
meridianum (Aceratherium)	646	micropterus (Ischypterus)	375
meridianus (Aphelops)	646	micropterus (Semionotus)	375
meridianus (Rhinoceros)	646	micropus (Cladodus)	269
Meriones	732	Microsauria	410
merrilli (Empo)	387	Microsaurus	792
Merychippus	616	Microsyops	791, 792
Merychyus	668, 669	Microtinae	728
Merycochoerus	667	Microtus	728
Merycodemus	672	miersii (Dipristis)	324
Merycodus	682, 683	miersii (Edaphodon)	324
Merycoidodon	665	miersii (Ischyodus)	324
Merycoidodontinae	665	miersii (Moesaurus)	466
Merycopater	662, 663	migrans (Agriochærus)	664
Mesacanthus	273	migrans (Agriomeryx)	664
Mesacodon	794	migrans (Coloreodon)	664
Mesaxonia	607	Millerichthys	543
Mesichthyes	397	milo (Agathaumas)	502
Mesobatis	320	mimeticus (Otocælus)	430
Mesoceti	588	minima (Auchenia)	678
Mesocetus	596, 600	minima (Eurylepis)	366
Mesocyon	773	minima (Exocampe)	544
Mesodactyla	602	minima (Haplolepis)	366
Mesodectes	739	minima (Lama)	678
Mesodmodus	297	minima (Leptauchenia)	672
Mesodon	372, 373	minima (Pilauchenia)	678, 680
Mesodonta	786	minimum (Anchitherium)	795

	Page.		Page.
minimum (Argozoum)	548, 550	minutus (Adjidaumo)	720
minimum (Hipparion)	620, 795	minutus (Antilodus)	279
rhinimus (Anomepus)	539	minutus (Cimolomys)	560
minimus (Argoides)	540, 448, 550	minutus (Ctenodus)	352
minimus (Dactylodus)	283	minutus (Diplodus)	266
minimus (Hypsodus)	672	minutus (Dipterus)	352
minimus (Miocænus)	606, 746	minutus (Entomacodon)	741
minimus (Mysops)	725	minutus (Equus)	617
minimus (Plesiornis)	550	minutus (Gymnptychus)	720
minimus (Pachyrhizodus)	388	minutus (Ischypterus)	375
minimus (Ornithoidichnites)	548, 550	minutus (Isurus)	306
minimus (Procamelus)	678	minutus (Mysops)	725
minimus (Polyrhizodus)	283	minutus (Nanomyops)	560
minimus (Syllophodus)	725	minutus (Nanomys)	560
minitans (Plectropterna)	549	minutus (Oreosaurus)	475
minitans (Plectropus)	549	minutus (Ornithomimus)	494
minitans (Sauroldichnites)	549	minutus (Orodus)	295
minor (Æthyopus)	550	minutus (Petalodus)	279
minor (Anomepus)	539	minutus (Semionotus)	375
minor (Anchippodus)	717	minutus (Xestops)	475
minor (Auchenia)	678	Miobasilus	634, 635
minor (Baphetes)	418	Miocænide	606
minor (Bothriolepis)	343	Miocænus	603, 606, 607, 649, 694, 695, 744, 746, 747, 748, 749, 751, 762
minor (Carcharodon)	309	Miodonta	718
minor (Catopterus)	370	Miohipus	612, 613, 614
minor (Dinichthys)	347	Miolabine	676
minor (Edestus)	337	Miolabis	676, 677
minor (Entoptychus)	731	Mioplosus	404
minor (Euprogonia)	603	Miothen	571, 741
minor (Fulica)	528	mira (Ischyrrhiza)	398
minor (Fulicopus)	550	mirabile (Dinoceras)	703
minor (Galeocerdo)	311, 313	mirabile (Megatherium)	576
minor (Gigandipus)	545	mirabile (Uintatherium)	703
minor (Gavialis)	515	mirabilis (Dielonius)	504
minor (Hadrosaurus)	504	mirabilis (Diplognathus)	348
minor (Hylopus)	546	mirabilis (Hadrosaurus)	504
minor (Lama)	678	mirabilis (Merychippus)	617
minor (Merycoidodon)	666	mirabilis (Physonemus)	334
minor (Mosasaurus)	466	mirabilis (Plesiornis)	550
minor (Oreodon)	666	mirabilis (Pliohippus)	617
minor (Palæosyops)	630, 632, 717	mirabilis (Protohippus)	617, 618
minor (Plesiornis)	539, 550	mirabilis (Trachodon)	504
minor (Pliuchaenia)	678	mirabilis (Xystracanthus)	334
minor (Ponerichthys)	347	mirandus (Aublysodon)	439
minor (Procamelus)	678	mirificum (Mammut)	711
minor (Protogaleus)	311	mirificus (Dibelodon)	711
minor (Protogonia)	603	mirificus (Ischyodus)	324
minor (Protoreodon)	664	mirificus (Edaphodon)	324
minor (Psephodus)	289	mirificus (Mastodon)	711
minor (Redfieldius)	370	mirificus (Tetralophodon)	711
minor (Sandalodus)	289	mirus (Apatodon)	506
minor (Tetracænodon)	603	mirus (Calamodon)	575
minor (Thecachampsia)	515	mirus (Ophiacodon)	434
minor (Trachodon)	504	mirus (Stylinodon)	575
minor (Trigonodus)	289	mississippiensis (Alligator)	514
minus (Gigantitherium)	545	mississippiensis (Canis)	775
minus (Telmatotherium)	631	mississippiensis (Crocodilus)	514
minus (Tillotherium)	717	mississippiensis (Elephas)	714
minusculum (Brontozoum)	544	Missourian	707
minusculus (Desmodus)	297	Missourienne (Orycterotherium)	579
minusculus (Dilophodon)	626	Missouriensis (Batrachosaurus)	466
minusculus (Eubrontes)	544	Missouriensis (Leviathan)	709
minusculus (Helaletes)	626	Missouriensis (Mosasaurus)	466
minusculus (Hypsodus)	790	Missouriensis (Notalacerta)	547
minusculus (Orodus)	297	Missouri (Leviathan)	709
minuta (Oxyrhina)	306, 313		

	Page.		Page.
Missourium	707, 708, 709	montanus (Bunomeryx)	650, 672
missuriense (Batrachiotherium)	466	montanus (Canis)	776
missuriensis (Batrachosaurus)	466	montanus (Ceratops)	500
missuriensis (Ichthyosaurus)	466	montanus (Dermodactylus)	507
missuriensis (Polythorax)	438	montanus (Diconodon)	637
mittelli (Acanthodes)	273	montanus (Merycochoerus)	668
mittelli (Geosaurus)	471	montanus (Pliolophus)	610
mittelli (Liodon)	471	montanus (Pleurocœlus)	483
mittelli (Mosasaurus)	440, 465, 471	montanus (Procamelus)	678
mittillii (Macrosaurus)	471	montanus (Protolabis)	678
mittillii (Tylosaurus)	471	montanus (Pterodactylus)	507
mite (Aceratherium)	643	montanus (Steneofiber)	722
mite (Anthracotherium)	652	montanus (Symborodon)	637
miticulus (Esthonyx)	790	montanus (Titanosaurus)	484
miticulus (Hypœodus)	790	montezumæ (Hipparion)	620
mitis (Cænopus)	643	montezumæ (Hippotherium)	620
mitis (Elomeryx)	652	moodii (Otouzoum)	547
mixeri (Dinichthys)	347	moratus (Ullas)	599
Mixodectes	786	mordax (Dipterus)	352
Mixodectidæ	786	mordax (Myllobatis)	320
Mobulidæ	321	mordax (Tuditanus)	415
modesta (Phoca)	559	Moropodidæ	690
modestus (Hyrachyus)	639	Moropus	691
modestus (Ischyterus)	376	Morosauridæ	482
modestus (Lophiodon)	649	Morosaurus	483, 517
modestus (Polyrhizodus)	283	Morotherium	579
modestus (Semionotus)	376	morsitans (Oxyæna)	757
modestus (Squalodon)	589	mortifer (Cladodus)	269
modulus (Palæoniscus)	367	mortoni (Archæotherium)	655
modulus (Rhadinichthys)	367	mortoni (Atlantochelys)	440
molaris (Chomatodus)	280	mortoni (Carcharodon)	308
molaris (Diadectes)	427	mortoni (Elotherium)	655
molaris (Empedias)	427	mortoni (Entelodon)	655
molaris (Empedocles)	427	mortoni (Hemiptychodus)	317
molaris (Petalodus)	280	mortoni (Ptychodus)	317
molestus (Bathmodon)	699	mortuarius (Agathaumas)	498
molestus (Chirox)	559	mortuarius (Polyonax)	498
molestus (Coryphodon)	699	Mosasauria	464
molestus (Hexodon)	573	Mosasauridæ	464
molestus (Neoplagiulax)	559	Mosasaurine	464
Molgophidæ	411	Mosasaurus	440, 464, 469, 471, 472, 473, 517
Molgophis	412	moschatus (Bos)	688
molopina (Anosteira)	452	moschatus (Bubalus)	688
molopinus (Plastomenus)	452	moschatus (Ovibos)	688
molops (Bothremys)	438	mucronatus (Antilodus)	279
molops (Taphrosphys)	438	mucronatus (Otolithus)	408
molossus (Portheus)	384	mucronatus (Petalodus)	279
molossus (Xiphaetinus)	384	mudgel (Colonosaurus)	520
monax (Aretomys)	720	mudgel (Holcodus)	470
monax (Mus)	720	mudgel (Lamna)	303
Monitoridæ	476	mudgel (Lestosaurus)	470
monoceros (Monodon)	594	mudgel (Liodon)	470
Monocladodus	272	mudgel (Platecarpus)	470
Monoclonius	499, 500	mudgel (Plesiosaurus)	456
Monodelphia	571	mudgel (Portheus)	384
Monodon	594	mudgel (Xiphaetinus)	384
monodon (Mylagaulus)	721	mudgel (Rhinosaurus)	470
monolophus (Edaphodon)	324	mudglanus (Acondylacanthus)	330
monolophus (Ischyodus)	324	Mugilidæ	399
Monopnoa	426	Mugiloidæ	399
Monotrema	555	multicarinatus (Orodus)	296
monroei (Cladodus)	269	multicinctus (Dissorhophus)	420
montanum (Hyracotherium)	610	multicuspis (Prototomus)	752
montanum (Titanotherium)	635, 637	multicuspis (Sinopa)	752
montanus (Anisacodon)	637	multicuspis (Stypolophus)	752
montanus (Atlantosaurus)	481	multidens (Hylonomus)	412

	Page.		Page.
nematodon (<i>Hesperomys</i>)	727	nobilis (<i>Cochlidodus</i>)	293
nematodon (<i>Peromyscus</i>)	727	nobilis (<i>Helodus</i>)	293
Nematognathii	381	nobilis (<i>Pliogonodon</i>)	517
Nemorhædus	687	nobilissimus (<i>Holoptychius</i>)	358
neocæsariensis (<i>Isoetania</i>)	325	Nodosauridæ	497
neocæsariensis (<i>Gavialis</i>)	515	Nodosaurus	497
neocæsariensis (<i>Thoracosaurus</i>)	515	nodosus (<i>Glyptosaurus</i>)	475
Neoplagiaulax	559	nodosus (<i>Taphrosphys</i>)	438
Neornithes	519	norwoodensis (<i>Pterichthys</i>)	349
Neosclachii	301	notabilis (<i>Aspidichthys</i>)	345
Neotoma	727	notabilis (<i>Clastes</i>)	377
Neotomiæ	727	notabilis (<i>Lepidotus</i>)	377
neovidel (<i>Mosasaurus</i>)	466	notabilis (<i>Lepisosteus</i>)	377
nepæolica (<i>Cimolichthys</i>)	387	Notalacerta	547
nepæolica (<i>Empo</i>)	387	Notamphibia	547
nepæolicus (<i>Liodon</i>)	472	Nothæctus	610, 649, 788, 789, 790, 793
nepæolicus (<i>Rhamphosaurus</i>)	472	Nothocyoon	771
nepæolicus (<i>Tylosaurus</i>)	472	Nothodon	428
nepaholica (<i>Empo</i>)	387, 795	Nothodontidæ	426
Nephrosteon	595	Nothosaurids	457
neptunia (<i>Protostega</i>)	440	Nothosaurus	455, 457
Neptunochelys	440	Notidanii	300
Neurodromus	481	Notidanidæ	300
Neurodromicus	481	Notidanus	300, 301
newberriana (<i>Amia</i>)	381	Notogoneus	392
newberryi (<i>Brachydectes</i>)	413	Notomorpha	447, 448
newberryi (<i>Chomatodus</i>)	280	Notropis	396
newberryi (<i>Cladodus</i>)	272	novomehicanus (<i>Calamodon</i>)	575
newberryi (<i>Cladoselache</i>)	272	novomehicanus (<i>Ectoganus</i>)	575
newberryi (<i>Dinichthys</i>)	347	novomehicanus (<i>Styllodon</i>)	575
newberryi (<i>Sauroplesura</i>)	419	novo-mexicanus (<i>Orthopleurodon</i>)	289
newmani (<i>Cladodus</i>)	269	novo-mexicanus (<i>Sandalodus</i>)	289
nildificans (<i>Batrachoides</i>)	541	Numenius	526
nigra (<i>Hydrochelidon</i>)	525	nummifer (<i>Ptyonius</i>)	414
nigricans (<i>Anser</i>)	530	Nummopalatus	401
nigricollis (<i>Colymbus</i>)	523	nunenius (<i>Phenacodus</i>)	604
Nimravide	777	nunienum (<i>Pelycodus</i>)	789
Nimravine	777	nunienus (<i>Phenacodus</i>)	604
Nimravirus	781, 783	nuperus (<i>Acondylacanthus</i>)	330
niobrarenensis (<i>Megalomeryx</i>)	679	nuptus (<i>Pantolestes</i>)	649
niobrarenensis (<i>Procamelus</i>)	679	nuptus (<i>Trigonolestes</i>)	649
niobrarenensis (<i>Stylemys</i>)	450	Nyctilestes	742
niobrarenensis (<i>Testudo</i>)	450	Nyctitherium	742
nitens (<i>Allomys</i>)	719	Nyctodactylinae	508
nitens (<i>Meniscomys</i>)	719	Nyctodactylus	508
nitida (<i>Bothriolepis</i>)	344	Nyctosauridæ	508
nitida (<i>Erisichthe</i>)	379	Nyctosaurus	508
nitida (<i>Leptauchenia</i>)	670		
nitida (<i>Protophyrana</i>)	379	O.	
nitidus (<i>Cimolodon</i>)	560	oarthus (<i>Mosasaurus</i>)	466
nitidus (<i>Cimolomys</i>)	500	obesus (<i>Comptechinus</i>)	542
nitidus (<i>Cochlidodus</i>)	294	obesus (<i>Hoplacetus</i>)	596
nitidus (<i>Deltoptychius</i>)	294	obesus (<i>Mylobatis</i>)	320
nitidus (<i>Ectosteorhachis</i>)	362	obesus (<i>Rosmarus</i>)	784
nitidus (<i>Entomodon</i>)	755	obligna (<i>Lamna</i>)	306
nitidus (<i>Hybolacodus</i>)	271	oblignidens (<i>Hyrachyus</i>)	640
nitidus (<i>Megalichthys</i>)	362	oblignidens (<i>Protosphyrena</i>)	379
nitidus (<i>Parabatrachus</i>)	362	oblignidens (<i>Merycochoerus</i>)	668
nitidus (<i>Paramys</i>)	724	oblignidens (<i>Protapirus</i>)	627
nitidus (<i>Sciuravus</i>)	724	oblignidens (<i>Triplopus</i>)	640
nitidus (<i>Stenacanthus</i>)	344	obligum (<i>Ginglymostoma</i>)	310
nitidus (<i>Talpavus</i>)	738	obliguus (<i>Acrodontis</i>)	510
nitidus (<i>Viverravus</i>)	755	obliguus (<i>Carcharodon</i>)	505
nitor (<i>Stagodon</i>)	564	obliguus (<i>Chomatodus</i>)	280
nobilis (<i>Aletornis</i>)	528	obliguus (<i>Cochlidodus</i>)	294
nobilis (<i>Chitinodus</i>)	293	obliguus (<i>Corax</i>)	504

O.

	Page.		Page.
obliquus (Coryphodon)	698, 699	occidentalis (Protosphyæna)	380
obliquus (Deltodus)	292	occidentalis (Pteranodon)	506
obliquus (Tæniodus)	292	occidentalis (Pterodactylus)	508
obliquus (Tæniodus)	292	occidentalis (Ptychodus)	318
obliquus (Oracanthus)	334	occidentalis (Rhinosceros)	614, 614
obliquus (Otodus)	305	occidentalis (Rhizodus)	351
obliquus (Pæphodus)	268	occidentalis (Rhynchodus)	323
oblongus (Cymatodus)	277	occidentalis (Sagenodus)	354
oblongus (Ganorhynchus)	352	occidentalis (Scymnorhinus)	314
obscure (Mammut)	711	occidentalis (Scymnus)	314
obscure (Compsemys)	437	occidentalis (Strepsodus)	351
obscure (Crocodylus)	516	occidentalis (Thespesius)	502
obscure (Chomatodus)	277	occidentalis (Xystrodus)	289
obscure (Compsemys)	437	occiduus (Delphinus)	594
obscure (Emys)	437	occiduus (Nothosaurops)	457
obscure (Holops)	516	occiduus (Nothosaurus)	457
obscure (Mastodon)	710, 711, 712	occiduus (Plesiosaurus)	457
obscure (Tanaodus)	277	ocellatus (Glyptosaurus)	475
obscure (Tetrabelodon)	711	Oehlodus	265
obscure (Thoracosaurus)	516	Ochotona	735
obsoletus (Leptophractus)	354, 419	Ochotonidae	735
obtusa (Eupachemys)	448, 451	Octacodon	652
obtusata (Mephitis)	766	octonarius (Hadrianus)	450
obtusidens (Mesonyx)	750, 751	Octotomus	702, 703
obtusidens (Theropseura)	433	Odobenidae	783
obtusilobus (Stibarus)	672	Odobenus	783
obtusum (Dendrerpeton)	415	Odobenidae	783
obtusum (Dryolestes)	569	Odobenotherium	784
obtusum (Triceratops)	499	Odobenus	784
obtusum (Tuditanus)	415	Odocolleus	681
occidentale (Aceratherium)	643	Odontacanthus	362
occidentale (Anthracotherium)	652	Odontaspides	301
occidentale (Hipparion)	620	Odontaspidoidea	301
occidentale (Hippotherium)	619, 620	Odontaspis	301, 302, 303, 304, 313
occidentalis (Acondylacanthus)	330	Odontholce	520
occidentalis (Echmophorus)	524	Odontocete	568
occidentalis (Boavus)	479	Odontoceti	568
occidentalis (Cænopus)	643	Odontocetidea	568
occidentalis (Canis)	776	Odontolce	520
occidentalis (Cladocylus)	399	Odontomæ	519
occidentalis (Cladodus)	269	Odontornithes	519, 520
occidentalis (Clastes)	377	Odontotormæ	519
occidentalis (Coccosteus)	344, 345	œdemia (Anosteira)	453
occidentalis (Cochliodus)	292	œdemiæ (Plastomenus)	453
occidentalis (Colodon)	626	Oëstocephalus	414, 415
occidentalis (Ctenopetalus)	281	Oëstophorus	337
occidentalis (Ctenopterychius)	231, 232	ogmius (Compsemys)	445
occidentalis (Deltodus)	292	Ogmophis	490
occidentalis (Drepanodon)	778	Ogmorhinus	786
occidentalis (Eporeodon)	667	ohiensis (Ichthyacanthus)	422
occidentalis (Equus)	623	ohioensis (Castoroides)	733
occidentalis (Eucrotaphus)	667	ohioensis (Ctenodus)	351
occidentalis (Hadrosaurus)	502	ohioensis (Getalodus)	273
occidentalis (Harpacodus)	282	ohioensis (Petalodus)	278
occidentalis (Hoplophoneus)	778	ohioensis (Sagenodus)	354, 419
occidentalis (Lepidotus)	377	ohionis (Castor)	733
occidentalis (Lepisosteus)	377	ohionis (Trogothierium)	733
occidentalis (Leptacanthus)	330	ohioticus (Mastodon)	708
occidentalis (Lophiodon)	686	ohioticus (Tetracaulodon)	708
occidentalis (Mosasaurus)	465	ohioticus (Trilophodon)	708
occidentalis (Oreodon)	667	Oligobellus	396
occidentalis (Palæonictis)	756	Oligobunus	770
occidentalis (Petrodus)	298	Oligopiarbus	406
occidentalis (Podiceps)	524	Oligosimus	459
occidentalis (Procamelus)	677, 678	Oligosomus	459
occidentalis (Protocamelus)	678	Oligotomus	605, 611

	Page.
Olor	530
omnivorus (Phenacodus)	604
Omomys	787, 788
Omosauridae	496
Omosaurus	496, 509, 510
onchognathus (Baptosaurus)	468
Onchus	326
Oncobatis	316
Ondatra	729
Ontocetus	596
Onychodectis	573
Onychodontidae	362
Onychodus	363
Ophiacodon	434
Ophidia	478
ophryas (Brontotherium)	635
ophryas (Miobasileus)	635
ophryas (Symborodon)	635
Ophthalmosaurus	463
Opiarthri	300
opisthaca (Protoselene)	607
opisthacus (Hemithlaeus)	607
opisthacus (Miocænus)	607
Opiarthrari	300
Opiathocella	482
Opiathotomus	787, 792
Oracanthus	332, 334
Oracodon	561
orbicularia (Platysomus)	369
orcina (Delphinapterus)	594
ordiana (Janassa)	276
ordinatus (Ectocynodon)	428
ordinatus (Parlotichus)	428
oregonense (Aceratherium)	644
oregonense (Diceratherium)	644
oregonense (Orycterotherium)	579
oregonensis (Aphelops)	644
oregonensis (Ogmophis)	480
oregonensis (Rhinoceros)	644
oregonensis (Stylomys)	451
oregonensis (Testudo)	451
oregonus (Larus)	525
Oreocyon	757
Oreodon	665, 666, 667, 668
Oreodontidae	662, 664, 665
Oreodontinae	665
oreodontis (Hopliphoneus)	779
oreodontis (Machærodon)	779
Oreosaurus	475
Oricardinus	388
orientalis (Discosaurus)	458
orientalis (Elasmosaurus)	458
orientalis (Teleopternus)	680
ornata (Anosteira)	447
ornata (Anostira)	447
ornata (Chelone)	441
ornata (Exocampe)	544
ornata (Lamna)	303
ornatissima (Eurylepis)	366
ornatissima (Mecolepis)	366
ornatissima (Haplilepis)	366
ornatum (Rhabdoderma)	364
ornatum (Schistopleurum)	580
ornatus (Acipenser)	371
ornatus (Amblypterus)	365
ornatus (Catopterus)	370

	Page.
ornatus (Cœlacanthus)	364
ornatus (Cœlorhynchus)	331
ornatus (Cylindracanthus)	331
ornatus (Deltodus)	293
ornatus (Glyptops)	457
ornatus (Hoplophorus)	580
ornatus (Mesodmodus)	297
ornatus (Peritresius)	441
ornatus (Pœcilodus)	293
ornatus (Redfieldius)	370
ornatus (Orodus)	296
ornatus (Tylosteus)	477
Ornithites	538
Ornithichnites	538, 539, 540, 543, 544, 545, 550, 551, 552
Ornithischia	495
Ornithocephalidae	506
Ornithocephalus	507
Ornithochirus	507, 508
Ornithodelphia	555
Ornithoidichnites	538, 539, 540, 541, 542, 543, 544, 545, 548, 549, 550, 551, 552
Ornithomimidae	494
Ornithomimus	494
Ornithopappi	518
Ornithopoda	495, 500
Ornithopus	561
Ornithosauria	506
Ornithosaurus	506
Ornithoscelida	482
Ornithostoma	507, 508
Ornithostomatidae	507
Ornithostomatinae	507
Ornithotarsus	506
Ornithura	519
Orodontidae	295
Orodus	295, 296, 297
Orohippidae	608
Orohippus	609, 610, 611, 612
Oromeryx	672
Oromys	734
Orophosaurus	459
Orotherium	609, 611, 612
Orthacanthus	264
Orthacodus	302
Orthhybodus	299
Orthocynodon	641
Orthodactylus	547
orthodon (Palæoctonus)	490
Orthognathus	360
Orthopleurodon	289
Orthopoda	495, 500
orthopygia (Testudo)	451
orthopygius (Xerobates)	451
orthostica (Mephitis)	766
ortonl (Onychodus)	363
Orycterocetus	595
Orycterotherium	578, 579
osagel (Tetracaulodon)	709
osborni (Arctosaurus)	492
osborni (Trigonias)	642
osbornianum (Ectocion)	605
osbornianum (Hyracotherium)	611
osbornianus (Eobippus)	605
osbornianus (Oligotomus)	605
osbornianus (Orohippus)	611

	Page.	P.	Page.
<i>osbornianus</i> (Phenacodus)	605	<i>paca</i> (Agouti)	734
<i>osbornii</i> (Creccoides)	524	<i>paca</i> (Cœlogenys)	734
<i>oculus</i> (Notogoneus)	392	<i>paca</i> (Mus)	734
<i>Omeroides</i>	593	<i>Pachyena</i>	749
<i>Osmotherium</i>	766	<i>pachycephalum</i> (Pomatotherium)	768
<i>osorum</i> (Bunælorus)	767	<i>pachycephalus</i> (Brachypsalis)	768
<i>osorum</i> (Canis)	767	<i>Pachycormidæ</i>	556
<i>osorum</i> (Daphnœos)	767	<i>Pachyeyon</i>	776
<i>osseus</i> (Lepisosteus)	377	<i>pachydactylum</i> (Spheropezium)	552
<i>ossifraga</i> (Pachyena)	750	<i>pachydactylus</i> (Spheropezopus)	552
<i>ossifragus</i> (Mesonyx)	750	<i>pachydactylus</i> (Thenaropus)	552
<i>Osteodermi</i>	558	<i>Pachyodon</i>	559
<i>Osteoglossidæ</i>	393	<i>pachyodon</i> (Myliobatis)	320
<i>Osteoglossum</i>	393	<i>pachygnathus</i> (Brachypsalis)	768
<i>Osteolepidæ</i>	361	<i>Pachylemuridæ</i>	788
<i>Osteolepis</i>	361	<i>pachylomus</i> (Emys)	443
<i>Osteopera</i>	734	<i>Pachynolophus</i>	610, 611, 612, 625
<i>Osteopygis</i>	441	<i>Pachyodon</i>	559
<i>Osteostraci</i>	340	<i>pachyodon</i> (Myliobatis)	320
<i>Ostinaspis</i>	597	<i>pachyops</i> (Merychippus)	617
<i>Ostracodermi</i>	339	<i>pachyops</i> (Pliohippus)	617
<i>Ostracophori</i>	339	<i>pachyops</i> (Protohippus)	617
<i>Otaria</i>	783	<i>pachypus</i> (Bathmodon)	698
<i>Otaridæ</i>	783	<i>pachypus</i> (Coryphodon)	699
<i>Otaridæ</i>	783	<i>Pachyrhizodontidæ</i>	387, 388
<i>otaridens</i> (Hemiganus)	573	<i>Pachyrhizodus</i>	387, 388
<i>otaridens</i> (Wortmania)	573	<i>Pachyura</i>	315
<i>Otocelidæ</i>	429	<i>Pacificus</i>	727
<i>Otocelus</i>	430	<i>pacificum</i> (Diceratherium)	644
<i>Otodus</i>	304, 306	<i>pacificus</i> (Aphelops)	644
<i>Otolithus</i>	408	<i>pacificus</i> (Equus)	623
<i>Otozoum</i>	547	<i>pacificus</i> (Eporeodon)	667
<i>onchognathus</i> (Baptosaurus)	468	<i>pacificus</i> (Eurolaphus)	667
<i>ovatus</i> (Ischypterus)	576	<i>pacificus</i> (Rhinoceros)	644
<i>ovatus</i> (Palæoniscus)	576	<i>pacificus</i> (Shastasaurus)	463
<i>ovatus</i> (Semionotus)	376	<i>padanicus</i> (Thlæodon)	565
<i>overtoni</i> (Brachysaurus)	471	<i>Pagophilus</i>	715
<i>Ovillos</i>	687	<i>Palæacodon</i>	794
<i>Ovidæ</i>	687	<i>Palæaspis</i>	340
<i>Ovinæ</i>	687	<i>palæatlantica</i> (Balæna)	600
<i>Ovis</i>	687	<i>palæatlantica</i> (Balænoptera)	660
<i>ovoidactylum</i> (Spheropezium)	552	<i>palæatlantica</i> (Protobalæna)	600
<i>ovoidactylus</i> (Spheropezopus)	552	<i>palæatlanticus</i> (Rhegnopsis)	600
<i>ovoidactylus</i> (Thenaropus)	552	<i>Palæchimæra</i>	325
<i>ovoiden</i> (Eurylepis)	366	<i>Palæadaphus</i>	362
<i>ovoiden</i> (Haplolepis)	366	<i>Palæclitops</i>	739
<i>ovoiden</i> (Mecolepis)	366	<i>Palæobatis</i>	279, 280
<i>oweni</i> (Denderpeton)	418	<i>Palæoborus</i>	585
<i>oweni</i> (Emys)	450	<i>Palæocaster</i>	722
<i>oweni</i> (Pterodactylus)	508	<i>Palæochærus</i>	657, 658
<i>oweni</i> (Testudo)	450	<i>Palæoctonus</i>	490
<i>Oxhyæna</i>	756	<i>Palæogale</i>	567
<i>Oxyacodon</i>	602	<i>Palæolagus</i>	735
<i>Oxyæna</i>	756	<i>Palæomeryx</i>	682
<i>Oxyænidæ</i>	756	<i>Palæomytus</i>	323
<i>Oxyæninæ</i>	756	<i>Palæonictidæ</i>	755
<i>Oxyænodon</i>	759	<i>Palæonictis</i>	755
<i>Oxyclenidæ</i>	744	<i>Palæoniscida</i>	365
<i>Oxyclenus</i>	744, 747	<i>Palæoniscidæ</i>	365
<i>oxypogon</i> (Stratodus)	387	<i>Palæoniscum</i>	367
<i>oxyprion</i> (Priscacara)	401	<i>Palæoniscus</i>	365, 387, 368, 369, 375, 376
<i>Oxyrhina</i>	304, 305, 306, 307, 313	<i>Palæonornis</i>	587
<i>oxyrhinoides</i> (Otodus)	306	<i>Palæonotidani</i>	300
<i>oxyrhinus</i> (Lestosaurus)	470	<i>Palæonyctis</i>	735
<i>oxyrhinus</i> (Platycarpus)	470	<i>Palæophidæ</i>	478
<i>oxysternum</i> (Agomphus)	445	<i>Palæophis</i>	479
<i>oxysternum</i> (Amphimys)	445	<i>Palæosauropus</i>	548, 796
<i>oxytomus</i> (Enchodus)	389		

	Page.		Page.
Palæosaurus	492, 510	parallelus (Grallator)	545
Palæoscincus	497	parallelus (Ornithichnites)	545
Palæoselachii	300	parallelus (Orodus)	296
Palæosinopa	754	parallelus (Petalodus)	230
Palæospiza	537	Parameryx	674, 675
Palæosyopina	629	Paramys	723
Palæosyops	630, 631, 632, 717	Parasaurus	456
Palæotetrix	534	Parasuchia	509
Palæoteuthis	539	Paraxonia	618
Palæotheca	447, 448	Pareiasauria	426
Palæotherium	613, 636	Pareiasauridae	429
Palæotringa	527	Parelophitæ	406
Palamopus	544, 548, 550	Pariasauria	426
palatinum (Praotherium)	755	Parietis	767
palatinus (Lagomys)	755	paridens (Helodectæ)	429
palatinus (Ochotona)	755	Paridigitata	647
pallasii (Bos)	687	paridigitatum (Argozoum)	540
pallidincta (Cupidonia)	534	Parieasaurus	429
pallidinctus (Tympanuchus)	534	Parietis	767
palmaris (Platysomus)	369	parlogonus (Merychyus)	669
palmatus (Ornithichnites)	548	Parlostegus	423
palmatus (Sauroidechnites)	548	Pariotichidæ	428
palmieri (Nemorhædus)	687	Pariotichus	428, 429
palmipes (Shepardia)	551	Parloxys	421, 422
palocidentalis (Ardea)	531	Paroceras	702
paloregonus (Cygnus)	530	Paronychodon	490, 560
paloregonus (Olor)	530	parva (Emys)	444
paludosus (Limnohyus)	631	parvidens (Canis)	771
paludosus (Palæosyops)	630, 631	parvidens (Diastichus)	395
palustris (Miæcis)	761	parvidens (Paramys)	724
palustris (Vulpavus)	761	parvidens (Scuiravus)	724
pamphagus (Saurocephalus)	386	parviloba (Mustela)	767
Pamphractus	543	parviscutatus (Chelone)	443
pandatum (Amyzon)	395	parviscutum (Chelone)	443
pandatus (Cladodus)	269	parvisquamis (Cercariomorphus)	417
paniense (Hipparion)	620	parvitecta (Chelone)	443
paniense (Hippotherium)	620	parvitectus (Puppligerus)	443
paniense (Tricium)	736	parvivorus (Miæcis)	761
Panolax	736	parvivorus (Viverravus)	761
panollus (Sciurus)	719	parvivorus (Vulpavus)	761
pansus (Castor)	722	parvulum (Anchitherium)	617
pansus (Stenoeffer)	722	parvulus (Antlodus)	279
Pantodonta	696	parvulus (Batrachoidichnites)	541
Pantolambda	696	parvulus (Catopterus)	370
Pantolambdidae	696	parvulus (Cladodus)	269
Pantolambdina	696	parvulus (Ctenacanthus)	329
Pantolestes	648, 649, 650	parvulus (Equus)	617
Pantolestida	648	parvulus (Histiofhorus)	402
Pantolestidae	648	parvulus (Hoplanchus)	329
Pantolestoides	648	parvulus (Istiofhorus)	402
Pantosaurus	456	parvulus (Merychippus)	617
Pantotheria	563	parvulus (Mesohippus)	617
Pantylus	429	parvulus (Ornithoidichnites)	541
papillosus (Ptychodus)	318	parvulus (Orodus)	296
Pappichthys	381	parvulus (Petalodus)	279
Parabatrachus	362	parvulus (Physonemus)	333
Paracetus	596	parvulus (Protohippus)	617
Paradaphænus	772	parvulus (Ptychodus)	318
paradoxicum (Agriotherium)	664	parvulus (Redfieldius)	370
paradoxicus (Protoreodon)	664	parvulus (Sandalodus)	289
Paradoxodon	762	parvulus (Stenopterodus)	289
paradoxus (Hyrachyus)	639	parvum (Cetotherium)	599
Parahippus	616, 617	parvum (Elachoceras)	705
Parahybodus	299	parvum (Otozoum)	547
Parahyus	654	parvum (Uintatherium)	705
parallelum (Brontozoum)	545	parvus (Cimolodon)	560
parallelus (Chomatodus)	280	parvus (Cimolomys)	560
parallelus (Dittodus)	266	parvus (Crocodylus)	513

	Page.	P.	Page.
œbornianus (Phenacodus)	605	paca (Agouti)	734
œbornii (Creccoides)	528	paca (Cœlogenys)	731
œculus (Notogoneus)	392	paca (Mus)	731
Oameroides	393	Pachyæna	749
Oamotherium	766	pachycephalum (Pomatotherium)	768
œorum (Bunæurus)	767	pachycephalus (Brachypsalis)	768
œorum (Canis)	767	Pachycornidæ	378
œorum (Daphnœus)	767	Pachycorn	776
œseus (Lepisosteus)	377	pachydactylum (Spheropezium)	552
œsifraga (Pachyæna)	750	pachydactylus (Spheropezopus)	552
œsifragus (Mesonyx)	750	pachydactylus (Thenaropus)	562
Osteodermi	358	Pachyodon	589
Osteoglossida	393	pachyodon (Myliobatis)	320
Osteoglossum	393	pachygnathus (Brachypsalis)	768
Osteolepida	361	Pachylemuridæ	783
Osteolepis	361	pachylomus (Emys)	145
Osteopera	784	Pachynolophus	610, 611, 612, 625
Osteopygia	441	Pachyodon	589
Osteostraci	340	pachyodon (Myliobatis)	320
Ostinaspis	297	pachyops (Merychippus)	617
Ostracodermi	339	pachyops (Pliohippus)	617
Ostracophori	339	pachyops (Protohippus)	617
Otarla	783	pachypus (Bathmodon)	698
Otaridæ	783	pachypus (Coryphodon)	699
Otarlidæ	783	Pachyrhizodontidæ	387, 388
otaridens (Hemiganus)	573	Pachyrhizodus	387, 388
otaridens (Wortmania)	573	Pachyura	315
Otocelidæ	429	Pacielulus	727
Otocelus	430	pacificum (Diceratherium)	644
Otodus	304, 306	pacificus (Aphelops)	644
Otolithus	408	pacificus (Equus)	623
Otozoum	547	pacificus (Eopreodon)	667
onchognathus (Baptosaurus)	468	pacificus (Eucrotaphus)	667
ovatus (Ischypterus)	376	pacificus (Rhinoceros)	644
ovatus (Palæoniscus)	376	pacificus (Shastasaurus)	463
ovatus (Semionotus)	376	padanicus (Thilæodon)	565
overtoni (Brachysaurus)	471	Pagophilus	785
Ovibos	687	Palæacodon	794
Ovide	687	Palæaspis	340
Ovinæ	687	palæatlantica (Balæna)	600
Ovis	687	palæatlantica (Balænoptera)	600
ovoidactylum (Spheropezium)	552	palæatlantica (Protobalæna)	600
ovoidactylus (Spheropezopus)	552	palæatlanticus (Rhegnopsis)	600
ovoidactylus (Thenaropus)	552	Palæchimæra	325
ovoidea (Eurylepis)	366	Palædaphus	352
ovoidea (Haplolepis)	366	Palædictops	739
oweni (Dendrerpeton)	418	Palæobatis	279, 280
oweni (Emys)	450	Palæoborus	635
oweni (Pterodactylus)	508	Palæocastor	722
oweni (Testudo)	450	Palæochærus	657, 658
Oxyæna	756	Palæoctonus	490
Oxyacodon	602	Palæogale	967
Oxyæna	756	Palæolagus	735
Oxyænidæ	756	Palæomeryx	682
Oxyæninæ	756	Palæomytilus	323
Oxyænodon	759	Palæonictidæ	755
Oxyclenidæ	744	Palæonictis	755
Oxyclenus	744, 747	Palæoniscida	365
oxypogon (Stratodus)	387	Palæoniscidæ	365
oxypriion (Priscacara)	401	Palæoniscum	367
Oxyrhina	304, 305, 306, 307, 313	Palæoniscus	365, 367, 368, 369, 375, 376
oxyrhinoides (Otodus)	306	Palæonornis	637
oxyrhinus (Lestosaurus)	470	Palæonotidani	300
oxyrhinus (Platecarpus)	470	Palæonyctis	755
oxysternum (Agomphus)	445	Palæophidæ	478
oxysternum (Amphlemys)	445	Palæophis	479
oxytomus (Enchodus)	389	Palæosauropus	548, 796

	Page.		Page.
Palæosaurus	492, 510	parallelus (<i>Grallator</i>).....	545
Palæoscincus	497	parallelus (<i>Ornithichnites</i>).....	545
Palæoselachii	300	parallelus (<i>Orodus</i>).....	295
Palæosinopa	754	parallelus (<i>Petalodus</i>).....	230
Palæospiza	537	Parameryx	674, 675
Palæosyopina	629	Paramys	722
Palæosyops	630, 651, 652, 717	Parasaurus	456
Palæotetrix	534	Parasuchia	509
Palæoteuthis	539	Paraxonia	648
Palæotheca	447, 448	Parelasauria	426
Palæotherium	613, 636	Parelasauridae	429
Palæotringa	527	Pareliophitæ	406
Palamopus	544, 548, 550	Pariasauria	426
palatinum (<i>Prootherium</i>).....	735	Parietis	767
palatinus (<i>Lagomys</i>).....	735	paridens (<i>Helodectes</i>).....	429
palatinus (<i>Ochotona</i>).....	735	Paridigitata	647
pallasii (<i>Bos</i>).....	687	paridigitatum (<i>Argozoum</i>).....	540
pallidicincta (<i>Cupidonia</i>).....	534	Pariasaurus	429
pallidicinctus (<i>Tympanuchus</i>).....	534	Parietis	767
palmaris (<i>Platysomus</i>).....	369	pariogonus (<i>Merychys</i>).....	669
palmatus (<i>Ornithichnites</i>).....	548	Parlostegus	423
palmatus (<i>Sauroidichnites</i>).....	548	Pariotrichidæ	428
palmeri (<i>Nemorhædus</i>).....	687	Pariotrichus	428, 429
palmipes (<i>Shepardia</i>).....	551	Parioxys	421, 422
palocidentalis (<i>Ardea</i>).....	531	Paroceras	702
paloregonus (<i>Cygnus</i>).....	530	Paronychodon	490, 560
paloregonus (<i>Olor</i>).....	530	parva (<i>Emys</i>).....	444
paludosus (<i>Limnophus</i>).....	631	parvidens (<i>Canis</i>).....	771
paludosus (<i>Palæosyops</i>).....	630, 631	parvidens (<i>Diastichus</i>).....	395
palustris (<i>Miacis</i>).....	761	parvidens (<i>Paramys</i>).....	724
palustris (<i>Vulpavus</i>).....	761	parvidens (<i>Sciuravus</i>).....	724
pamphagus (<i>Saurocephalus</i>).....	386	parviloba (<i>Mustela</i>).....	767
Pamphractus	343	parviscutatus (<i>Chelone</i>).....	445
pandatum (<i>Amyzon</i>).....	396	parviscutum (<i>Chelone</i>).....	445
pandatus (<i>Cladodus</i>).....	269	parvisquamis (<i>Cercariomorphus</i>).....	417
paniense (<i>Hipparion</i>).....	620	parvitecta (<i>Chelone</i>).....	445
paniense (<i>Hippotherium</i>).....	620	parvitectus (<i>Puppigerus</i>).....	443
paniense (<i>Tricium</i>).....	736	parvivorus (<i>Miacis</i>).....	761
Panolax	736	parvivorus (<i>Viverravus</i>).....	761
panolius (<i>Sciurus</i>).....	719	parvivorus (<i>Vulpavus</i>).....	761
pansus (<i>Castor</i>).....	722	parvulum (<i>Anchitherium</i>).....	617
pansus (<i>Steneoiber</i>).....	722	parvulus (<i>Antliodus</i>).....	279
Pantodonta	696	parvulus (<i>Batrachoidichnites</i>).....	541
Pantolambda	696	parvulus (<i>Catopterus</i>).....	370
Pantolambdidae	696	parvulus (<i>Cladodus</i>).....	269
Pantolambdina	696	parvulus (<i>Ctenacanthus</i>).....	329
Pantolestes	648, 649, 650	parvulus (<i>Equus</i>).....	617
Pantolestida	648	parvulus (<i>Histiophorus</i>).....	402
Pantolestidae	648	parvulus (<i>Hoplonychus</i>).....	329
Pantolestoidea	648	parvulus (<i>Istiophorus</i>).....	402
Pantosaurus	456	parvulus (<i>Merychippus</i>).....	617
Pantotheria	563	parvulus (<i>Mesohippus</i>).....	617
Pantylus	429	parvulus (<i>Ornithoidichnites</i>).....	541
papillosus (<i>Ptychodus</i>).....	318	parvulus (<i>Orodus</i>).....	295
Pappichthys	381	parvulus (<i>Petalodus</i>).....	279
Parabatrachus	362	parvulus (<i>Physonemus</i>).....	333
Paracetus	596	parvulus (<i>Prothippus</i>).....	617
Paradaphenus	772	parvulus (<i>Ptychodus</i>).....	318
paradoxicum (<i>Agriotherium</i>).....	664	parvulus (<i>Redfieldius</i>).....	370
paradoxicus (<i>Protoreodon</i>).....	664	parvulus (<i>Sandalodus</i>).....	289
Paradoxodon	762	parvulus (<i>Stenopterodus</i>).....	289
paradoxus (<i>Hyrachys</i>).....	639	parvum (<i>Cetotherium</i>).....	599
Parahippus	616, 617	parvum (<i>Elachoceras</i>).....	705
Parahybodus	299	parvum (<i>Otozoum</i>).....	547
Parahys	654	parvum (<i>Uintatherium</i>).....	705
parallelum (<i>Brontozoum</i>).....	545	parvus (<i>Cimolodon</i>).....	560
parallelus (<i>Chomatodus</i>).....	280	parvus (<i>Cimolomys</i>).....	560
parallelus (<i>Dittodus</i>).....	266	parvus (<i>Crocodylus</i>).....	513

	Page.		Page.
parvus (Crucipes)	542	peltatus (Rhineastes)	382
parvus (Deltodus)	292	peltigerus (Elonichthys)	365
parvus (Enchodus)	389	peltigerus (Paleoniscus)	366
parvus (Ichthyodectes)	385	peltoceras (Menodus)	634
parvus (Eomeryx)	664	peltoceras (Titanotherium)	634
parvus (Ischypterus)	376	Peltochelyidae	152
parvus (Protoreodon)	664, 665	Peltodus	276
parvus (Semionotus)	376	Peltosaurus	475
parvus (Tillomys)	724	pelvidens (Chriacus)	745
Passalacodon	740	pelvidens (Lipodectes)	745
Passeres	536	pelvidens (Pelycodus)	745
Passeriformes	536	Pelycictis	766
Passerine	537	Pelycodus	744, 745, 789
Patriofelis	757, 778	Pelycorapis	539
pattersoni (Cladodus)	269	Pelycorhamphus	597
paucicristatus (Ceratodus)	554	Pelycosauria	430
paucicristatus (Ptyonodus)	554	penetrans (Diplodus)	266
paucicristatus (Sagenodus)	554	penetrans (Dissodus)	266
paucidens (Ceratops)	500	penetrans (Dittodus)	266
paucidens (Dinictis)	780	penetrans (Erisichthe)	579
paucidens (Dinictis)	780	penetrans (Lipodectes)	751
paucidens (Hadrosaurus)	500	penetrans (Protosphyrena)	379
paucidens (Hemipristis)	513	peninsulatum (Hipparion)	620
paucidens (Hypenodon)	759	peninsulatum (Hippotherium)	620
paucidens (Thinosaurus)	476	peninsulatus (Castor)	722
pauciporus (Orophosaurus)	459	peninsulatus (Steneofiber)	722
pauciradiata (Sauropleura)	419	pennantii (Maries)	767
pauciradiatus (Asineops)	404	pennantii (Mustela)	767
pauciradiatus (Colosteus)	479	pennatus (Trionyx)	454
paulus (Hyposodus)	739, 791	pennsylvanica (Arvicola)	729
paulus (Hypsodus)	791	pennsylvanicus (Clepsidaurus)	592, 510
Paurodon	569	pennsylvanicus (Clepsysaurus)	492
Paurodontidae	568	pennsylvanicus (Dicotyles)	650, 661
pealei (Priscacara)	401	pennsylvanicus (Mylohyus)	659
pecari (Aper)	661	pennsylvanicus (Microtus)	729
pecari (Tayassu)	795	pennsylvanicus (Tayassu)	659
Pecora	681	pennsylvanicus (Onchus)	326
pectinata (Sauropleura)	414	Pentacodon	745
pectinatus (Equus)	624	pentacus (Mioclenus)	603
pectinatus (Oestocephalus)	414	pentacus (Protogonodon)	603
pectinatus (Ptyonius)	414	pentagona (Raja)	516
pectinatus (Rhineastes)	382	pentagonus (Diclonius)	504
pectorale (Pleurosternum)	444	pentagonus (Oncobatis)	516
pectoralis (Adocus)	444	pentagonus (Trachodon)	504
pectorosus (Diplomystus)	391	pephero (Tetheodus)	389
Pedlocetes	534	pephredo (Tetheodus)	389
Pedlocetes	534	Peplorhina	364
Pedlomya	565	Peraceras	645, 646
pedunculatus (Clepsydrus)	432	peracutus (Machacanthus)	332
pelagius (Dysganus)	505	Peralestes	563
pelagius (Squalodon)	589	Perallestidae	563
Pelargo-herodii	531	perangulatus (Diclonius)	504
Pelargomorphæ	531	perangulatus (Trachodon)	504
Pelecaninæ	532	Peratheridae	570
Pelecanoidæ	532	Peratherium	570, 571
Pelecanus	532	Peresoces	394
Pelecopteridae	578	Percherus	657
Pelecopterus	379	Perridae	404
Pelecorapis	399	Percoldea	405
Pellon	410, 411	Percolde	404
Pellontidae	410	Percoldei	404
pellensis (Ctenacanthus)	328	Percomorphi	400
Pelomedusidae	438	percrassa (Clemmys)	449
Pelonax	654, 655, 656	percrassa (Sardiniis)	391
pelorius (Pneumatarthrus)	505	perclida (Galera)	766
pelorius (Pneumatarthrus)	505	perclida (Hemiacis)	766

	Page.		Page.
perdicida (Gallitids)	766	Pharyngodopilidae	400
perdicida (Mephitids)	766	Pharyngodopilus	401
perdicida (Spilogale)	766	Pharyngognathus	400
perditus (Equus)	617	Phascolestes	569
perditus (Merychippus)	617	Phascolotheridae	567
perditus (Protohippus)	617	Phascolotheriinae	567
periculorum (Oreodon)	666	Phascolotherium	567
Periodus	373	phaseolinus (Diadectes)	427
Periplectrodus	287	phaseolinus (Empedias)	427
periprion (Ctenodus)	354	phaseolus (Pycnodus)	373
periprion (Sagenodus)	354	Phaaganodus	388, 389, 390
Peripristis	281, 282	phasianellus (Pediocetes)	534
Peryptichidae	693	Phasianidae	534
Periptychinae	693	Phenacodontidae	602
Periptychus	693, 694	Phenacodus	603, 604, 605, 650, 746, 781
Perissodactyla	607	philadelphia (Chirococephalus)	525
Perissonychia	690	philadelphia (Larus)	525
Peritresius	441	Phlaocyon	765
perlatus (Liodon)	472	phlebotomus (Daptinus)	386
perlatus (Tylosaurus)	472	phlebotomus (Saurocephalus)	386
perniciosa (Protosphyraena)	379	phlebotomus (Saurodon)	386
perniciosus (Ichthyodectes)	379	Phlegethontia	411
perniciosus (Pelecopterus)	379	Phlegethontidae	411
pernix (Aletornis)	528	phlegon (Equus)	617
pernix (Eohippus)	609	phlegon (Merychippus)	617
pernix (Hippidium)	618	phlegon (Protohippus)	617
pernix (Hyracotherium)	609	Phlyctenacanthus	332
pernix (Pliohippus)	618	Phlyctenaspis	345
Peromyscus	726	Phlyctenius	345
Peropoda	479	Phoca	589, 591, 784, 785
perovalis (Antliodus)	279	Phocageneus	591
perovalis (Petalodus)	279	Phocidae	784
perplexus (Omosaurus)	510	Phocodon	588, 589
perrugosus (Bottosaurus)	514	Phocodontia	585
perpicillatus (Phalacrocorax)	533	Phoderacanthus	334
perspicuus (Aëtobatis)	321	Phœbodus	270
pertenuis (Ctenoptychius)	282	Phœnicopteri	531
pertenuis (Testudo)	451	Phœnicopteridae	528, 531
pertortus (Pelycorhamphus)	597	Phœnicopterinae	531
petaliferus (Glyptodon)	580	Phœnicopteroides	531
Petalodontidae	275	Phœnicopterus	531
Petalodontoides	275	Pholidophoridae	383
Petalodopsis	353	Pholidophorus	383
Petalodus	276, 277, 278, 279, 280	Phthinobranchii	396
Petalorhynchus	278	Phyllodidae	400
petersoni (Ectoconodon)	692	Phyllodus	401
petersoni (Protylopus)	675	Phyllolepidæ	349
petrinus (Cymbospondylus)	463	Phyllolepis	349
petrodoides (Glymmatacanthus)	331	Phyllophaga	575
Petrodus	297	Physeter	595, 596
petrolei (Emys)	448	Physeteridae	595
petrosa (Emys)	445	Physeterinae	595
petrosus (Adocus)	445	Physeterula	595
petrosus (Agomphus)	445	Physichthys	349
petrosus (Enchodus)	389	Physonemus	333, 334
Phacodus	405	Phytosauria	509
Phalacrocoracidae	533	Phytosauridae	509
Phalacrocoracinae	533	Phytosaurus	509
Phalacrocorax	533	pisaensis (Polyrhizodus)	283
Phalaropidae	526	Picariae	536
Phalaropus	527	Piciformes	536
Phaneropleuridae	352	Pilosa	575
Phaneropleurini	352	pilulatus (Anticheilropus)	539
Phaneropleuron	352, 353	pilulatus (Cheirotheroides)	541
Phareodon	352, 353	pilulatus (Plesiomis)	550
Phareodus	393	Pimelodus	382

	Page.		Page.
pinetorum (Arvicola)	729	platycephala (Osteopera)	734
pinetorum (Microtus)	729	platycephalum (Aceratherium)	645
pinetorum (Pitymys)	729	platycephalum (Pomatotherium)	768
pinetorum (Psammomys)	729	platycephalus (Rhinceros)	635
pinnatus (Monocladodus)	272	platyceras (Brontotherium)	635
Pinnipedia	783	platyceras (Menodus)	635, 636
Pipistrellus	742	platyceras (Titanotherium)	635, 636
Piptomerus	457	Platychoeropidae	715
Piratosaurus	456	Platychoerops	715
Places	338	platycopis (Deinictis)	780
placnaria (Lutra)	769	platycopis (Dinictis)	780
placopus (Cymbospondylus)	463	platycopis (Hoplophoneus)	780
Pitheciastes	670, 671	platycopis (Pogonodon)	780
Pitymys	728, 729	platycopsis (Pogonodon)	780
placenta (Helodus)	288	platydactylus (Ornithiehnites)	551
placenta (Psephodus)	288	Platygonus	660, 660
Placentalia	563, 571	platylomus (Osteopygis)	441
placidus (Merychippus)	617	Platyodus	290
placidus (Protohippus)	617, 620	platyops (Bothrolabis)	656
Placodermata	342	platyops (Euclastes)	442
Placodermi	342	platyops (Hyotherium)	656
Placodus	373	platyops (Lytoloma)	442, 736
Placoganoides	342	platyops (Palseochærus)	656
Placoides	262	Platypterna	540, 549
Placoides	262	platypternus (Diacranodus)	265
Placosauridae	474	platypternus (Didymodus)	265
Placosaurus	474	platypus (Eryops)	422
Placothorax	343	platypus (Ichthyocanthus)	422
Plagiaulacida	558	Platyrhachis	477
Plagiaulacidae	558	Platysomatidae	369
Plagiaulacinae	558	Platysomidae	369
Plagiaulacoides	558	Platysomus	369
Plagiulaux	558	platyspondylus (Baptosaurus)	468
Plagiostomata	263	platyspondylus (Halisaurus)	468
Plagiostomi	263, 263, 275	platyspondylus (Macrosaurus)	468
plainvillensis (Batrachichnus)	541	platyspondylus (Macrospendylus)	468
plana (Oxyrhina)	307	Platystegos	418
plana (Sphyrna)	309	platyrus (Cimoliosaurus)	458
planiceps (Baphetes)	418	platyrus (Elasmosaurus)	456
planiceps (Hynodon)	641	Platyrystrodus	290
planidens (Deltodus)	292	Plautus	524
planidens (Scylliorhinus)	310	Plectognathi	407
planidens (Scyllium)	310	Plectospondyli	394
planifrons (Clidastes)	470	plectrodon (Heptanchias)	300
planifrons (Entoptychus)	731	plectrodon (Notidanus)	300
planifrons (Lestosaurus)	470	Plectropterna	549
planifrons (Metamynodon)	642	Plectropus	549
planifrons (Platecarpus)	468, 470	plenus (Psammodus)	284
planior (Cimoliosaurus)	459	Plerodon	514
planior (Discosaurus)	459	Plesiartemys	723, 724
planus (Corax)	309	Plesioceetus	508
planus (Isurus)	307	Plesiochelyidae	439
planus (Stenopteroodus)	291	Plesiochelys	439
Plastomenidae	452	Plesioegale	767
Plastomenus	452, 454	Plesionis	539, 560
Platacodon	565	Plesiosauro	455
Platanistidae	590	Plesiosauria	455
Platanistinae	590	Plesiosauridae	455
Platax	403	Plesiosaurus	456, 457, 591
Platecarpine	468	Plethodidae	303
Platecarpus	440, 468, 469, 470, 471	Pleuranthidae	263
Platymys	459	Pleuranthides	263
Platygonus	660	Pleuranthus	263, 264, 265, 266, 268
Platinista	590	Pleurocellidæ	482
Platinistidae	590	Pleurocelus	483
Platinistinae	590	Pleurodera	486

	Page.		Page.
Pleurodira	436	Polemarchus	550
Pleurodon	514, 577, 578, 579	polemicus (Lembouax)	444
Pleuroliscus	731	politus (Antliodus)	279
Pleuropterygia	272	politus (Cladodus)	269
Pleuropterygii	272	politus (Gampbacanthus)	332
Pleuropteryx	417	politus (Helodus)	287, 288
Pleurosternidae	437	politus (Heteracanthus)	332
Pleurosternon	437	politus (Petalodus)	279
Pleurosternum	437, 444	politus (Phæbodus)	270
Pliauchenia	678, 679	politus (Psephodus)	288
plicatilis (Hipparion)	620	pollux (Catopsalis)	563
plicatilis (Hippotherium)	620	Polycotyline	455
plicatilis (Hybocladodus)	271	Polycotylus	457
plicatilis (Oxyrhina)	306	polycypha (Emys)	448
plicatulus (Compsemys)	437	polycypha (Palæotheca)	448
plicatus (Chirox)	557	Polydectes	514
plicatus (Conchodus)	352	Polygonodon	473
plicatus (Orodus)	295	polygyrus (Carcharias)	308
plicatus (Oromeryx)	672	polygyrus (Carcharodon)	308
plicatus (Pappichthys)	381	polygyrus (Ptychodus)	318
plicatus (Piratosaurus)	456	Polymastodon	562, 563
plicifera (Euprotogonia)	603	Polymastodontida	562
plicifera (Protogonia)	603	Polymastodontidae	562
plicodon (Helohyus)	650	Polymastodontinae	562
plicodon (Phenacodus)	650	polymicrodus (Anogmus)	393
plicomphala (Janassa)	276	polymicrodus (Beryx)	393
plicomphalus (Peltodus)	276	polymicrodus (Gillieus)	396
Plinthicus	321	polymicrodus (Ichthyodectes)	396
Pliodonta	734	polymicrodus (Osmroides)	343
Pligonodon	517	polymorpha (Janassa)	277
plioeryx (Aquila)	536	polymorphus (Tanaodus)	277
Pliohippus	616, 617, 618, 619	polyodon (Crocodylus)	513
Pliolophus	609, 610, 611, 612	polyodon (Diplocynodus)	513
Plioplarchus	405	Polyodontida	371
Plioplatecarpus	465	Polygonax	498, 500
Pneumatarthrus	505	Polyphractus	351
pneumaticus (Holops)	516	polyporum (Cetotherium)	599
Pneumatarthrus	505	polyporus (Echrichtius)	599
Pneumatosteus	376, 377	polyprion (Hybodus)	299
pnigecanthus	334, 335	Polyprotodontia	564
pnigeus (Oracanthus)	334	Polypterus	367
pnigeus (Pnigecanthus)	334	Polyptychodon	513, 587
Podiceps	523, 524	Polyrhizodontinae	275
podiceps (Podolymbus)	524	Polyrhizodus	282, 297, 298
podiceps (Podolymbus)	524	Polythorax	438
Podicipedidae	523	polyzelus (Anchisaurus)	491
Podicipidae	523	polyzelus (Megadactylus)	491
Podicipinae	523	Pomacentridae	401
Podicipitiformes	523	Pomacentroidea	400
Podicipoidea	523	Pomatotherium	768
Podoenemididae	438	Ponerichthys	346, 347
Podolymbus	524	ponderosa (Baena)	438
Podopterygia	365	ponderosa (Catapleura)	441
Poebrotheriidae	675	ponderosus (Osteopygis)	441
Poebrotheriinae	675	ponticulus (Polyrhizodus)	283
Poebrotherium	675, 676	pontifex (Cottus)	406
Pœcilidae	398	Pontobasilus	588
Pœcilodus	293	Pontogeneus	587
Pœluotherium	675, 676	Pontopora	590
Pogonias	405	popoagicum (Lambdotherium)	629
pogonias (Edaphosaurus)	433	porcatus (Agabelus)	598
Pogonodon	779, 780	porcinus (Nanohyus)	658
Policlopleuron	437, 439, 490	porosus (Polyrhizodus)	283
Polklopleuron	487	porosus (Psammodus)	284
poledrus (Hoplichnus)	546	porrectus (Ctenodus)	354
polemarchus (Saurioichnites)	550	porrectus (Naocephalus)	477

	Page		Page
porrectus (Sagenodus)	354	princeps (Parietis)	767
Portheus	379, 383	princeps (Dactylosodus)	283
Porzana	528	princeps (Glyptosaurus)	475
posticus (Heptodon)	625	princeps (Hipparion)	623
posticus (Pachynolophus)	625	princeps (Hippotherium)	622
posticus (Leuciscus)	396	princeps (Holoptychius)	366
posticus (Semotilus)	396	princeps (Hyrachyus)	630
posticus (Squalius)	396	princeps (Mosasaurus)	466
Potamites	452	princeps (Polyrhizodus)	283
potens (Ammodon)	656	princeps (Proconias)	434
potens (Ctenacodon)	558	princeps (Taphrosphys)	434
potens (Elotherium)	656	princeps (Uintatherium)	702
potens (Megalonyx)	677	Prionace	312
powellianus (Hyopsodus)	791	Prionodon	312, 313
powelli (Deltodus)	292	prisca (Balæna)	599
precursor (Dibolodon)	711	prisca (Balænoptera)	599
precursor (Dinichthys)	347	prisca (Palæchimæra)	325
precursor (Mammut)	711	prisca (Sphyrna)	314
precursor Ponerichthys)	347	prisca (Zygæna)	314
precursor (Mastodon)	711	Priscacara	401
præmaxillaris (Dinichthys)	347	prisciformis (Helagras)	481
prenuntia (Janassa)	277	Priscodelphinus	590, 591, 592, 593
prenuntius (Cladodus)	269	priscolatrans (Canis)	776
prenuntius (Tanaodus)	277	priscum (Cetotherium)	699
præstans (Anchitherium)	614	priscum (Nectitherium)	742
præstans (Meshippus)	614	priscum (Oreodon)	666
præstans (Mihippus)	614	priscus (Apedodus)	359
præstans (Telacodon)	566	priscus (Belodon)	510
Præotherium	735	priscus (Bison)	689
prava (Emys)	444	priscus (Bos)	689
pravus (Adocus)	444	priscus (Chriacus)	745
pravus (Xenodolamia)	309	priscus (Comptosaurus)	510
precedens (Coniophis)	481	priscus (Dietyorhabdus)	325
precursor (Dinichthys)	347	priscus (Diplodus)	266
Predentata	495	priscus (Dittodus)	266
prehensilis (Protolabis)	678	priscus (Dryolestes)	569
prentis-clarki (Dinichthys)	347	priscus (Ereptodon)	578
pressicorne (Tinoceras)	706	priscus (Eschrichtius)	599
pressicorne (Uintatherium)	706	priscus (Hadrodus)	373
pressicornis (Eobasilus)	706	priscus (Homacodon)	650
pressicornis (Loxolophodon)	706	priscus (Laopteryx)	518
Præcodon	567	priscus (Loxolophus)	745
Præcondon	496	priscus (Megalonyx)	578
pressidens (Enchodus)	389	priscus (Mylognathus)	325
primævus (Canis)	775	priscus (Oreodon)	666
primævus (Drepanodon)	779	priscus (Ovibos)	687, 688
primævus (Homogalax)	627	priscus (Palæosaurus)	510
primævus (H. plophoneus)	779	priscus (Pantolestes)	650
primævus (Macherodus)	779	priscus (Phytosaurus)	510
primævus (Machirodus)	779	priscus (Pliogonodon)	517
primævus (Megencephalon)	769	priscus (Pontogeneus)	587
primævus (Palæocæuropus)	548, 795	priscus (Procyon)	765
primævus (Parietis)	767	priscus (Protochriacus)	745
primævus (Phenacodus)	604	priscus (Siphonocetus)	599
primævus (Sauropus)	548	priscus (Telmatornis)	528
primævus (Systemodon)	627	priscus (Trionyx)	454
Primates	785	prismaticus (Protochærus)	660
primagenius (Elaphas)	714	Pristacanthus	331
primigenius (Elephas)	713	Pristiadodus	270, 271
primigenius (Euelephas)	713	Pristidæ	316
primigenius (Heptanchias)	300	Pristides	316
primigenius (Notidanus)	300	pristinum (Arctotherium)	763
primogenius (Elephas)	714	pristinus (Arctodus)	763
primus (Deltotychius)	294	pristinus (Bothrolabis)	658
primus (Didymictis)	754	pristinus (Chameleo)	478
primus (Leptarectus)	764	pristinus (Dicotylæ)	659

	Page.		Page.
pristinus (Palæochærus)	659	prophylæus (Lembonax)	444
pristinus (Tremarctos)	763	propinqua (Branta)	530
pristinus (Ursus)	763	propinquus (Deltodus)	293
Pristis	316	Propleura	441, 442
pristia (Acanthodes)	273	Propleuridæ	440
pristis (Acanthoëssus)	273	proprius (Merycochærus)	668
Pristodontina	275	propython (Clidastes)	467
pristodontus (Corax)	309	Prorastomidæ	582
pristodontus (Galeocerdo)	309	Prorastomus	461, 582
pristodontus (Galeus)	309	proriger (Liodon)	472
pristodontus (Squalus)	309	proriger (Macrosaurus)	472
Pristodus	282	proriger (Rhamphosaurus)	472
Proælorina	781	proriger (Rhinosaurus)	472
Proarthri	285	proriger (Tylosaurus)	472
proavutum (Diceratherium)	643	prorops (Belemnosphiphus)	597
proavitus (Rhinoceros)	643	prorops (Diopiodon)	597
proævus (Grus)	527	prorops (Mesopiodon)	597
proævus (Leptotragulus)	674	Prorosphiphus	597
proævus (Mammut)	711	prorsus (Agathaumas)	499
proævus (Mastodon)	710, 711	prorsus (Triceratops)	499
proævus (Parameryx)	674	Proarthri	285
Proballostomus	394	Proelachii	263
problematicus (Amblyodon)	416	Proelmia	786
problematicus (Diplodus)	267	Prosinopa	788
problematicus (Dissodus)	267	Prospiraxis	338
problematicus (Dollodus)	267	Protagnus	479
Proboscidea	706	Protagriochærus	662
proboscidea (Cystophora)	785	Protamia	380, 381
probus (Palæochærus)	657	protapirinus (Homogalax)	627
probus (Perchærus)	657	protapirinus (Systemodon)	627
Procamelus	677, 678, 679	Protapirus	627
Procellaridæ	526	Protautoga	401
Procellaroidæ	526	Protelotherium	654
Procellaroidæ	526	Protencephala	692
procerus (Ursus)	763	protenus (Didymletis)	755
Procerulus	683	protenus (Limnocyon)	755
Prochonia	438	protenus (Viverravus)	755
proclivus (Physonemus)	333	Proteosauridæ	462
Procella	511	Proteosaurus	462
procrispidatus (Colodon)	626	proterus (Aphelops)	646
Procyonictis	760	proterus (Rhinoceros)	646
Procyon	764	proterva (Cynorca)	589, 659
Procyonidæ	764	protervus (Squalodon)	589
Procyonina	764	Prothyraodon	640
procyoninum (Helotherium)	612	Protitanotherium	632
procyoninum (Hyracotherium)	612	Protobalana	600
procyoninum (Lambdotherium)	612	Protocamelus	677, 678
procyoninus (Orohippus)	612	Protocatostomus	394
Prodaphneus	760	Protocephali	339
Prodidelphia	563	Protoceras	673
productum (Mammut)	711	Protoceratidæ	673
productus (Carcharodon)	308	Protoceratina	673
productus (Galeocerdo)	312	Protochærus	660
productus (Mastodon)	711	Protochriæus	744, 745
productus (Stethacanthus)	333	Protodonta	555
productus (Tetrabelodon)	712	Protodus	266
profectum (Aceratherium)	646	Protogaleus	311
profectus (Aphelops)	646	Protogaulus	718
profectus (Protohippus)	617	Protogonia	603, 746
profundus (Aëtobatis)	321	protogonioides (Clænodon)	747
profundus (Champsosaurus)	461	protogonioides (Mioclenus)	747
prognathus (Ichthyodectes)	385	Protogonodon	603, 606
prognathus (Saurocephalus)	385	Protohippus	612, 615, 616, 617, 618, 620
Prohyæna	774	Protolabidæ	676
promicrodon (Uintacyon)	760	Protolabina	676
Propalæomeryx	682	Protolabis	676, 677, 678

	Page.		Page.
Protolambda	692	Pterosphenus	479
Protomeryx	676	Pterygacanthidae	263
Protomyiidae	723	Ptilodus	559, 560, 561
Protopsalis	757	Ptychodontidae	317
Protoptychida	730	Ptychodus	317, 318, 379
Protoptychus	730	Ptycholepis	376
Protoreodon	664, 665	Ptyctodontidae	322
Protoreodontina	664	Ptyctodus	322
Protorohippus	610	Ptyoniidae	414
Protosclene	607	Ptyonius	414
Protosorex	738	Ptyonodus	353, 354, 355
Protosphyrena	379	puclilus (Hemiacodon)	794
Protosphyrenidae	378	puclilus (Homacodon)	650
Protospondyli	378	puclilus (Pantolestes)	650
Protostega	439, 440	puercensis (Champosaurus)	461
Protostegidae	439	puercensis (Euprotogonia)	603
Prototheria	555	puercensis (Phenacodus)	603
Prototomus	751, 752, 753, 790, 792	puercensis (Tetracænodon)	603
Protriton	410	Puffinus	526
Protritonidae	410	puglunculus (Ctenacanthus)	328
Protrigomorphia	718	puglunculus (Oracanthus)	328
Protungulata	602	pugnax (Loxolophodon)	705
Protylopus	675	pugnax (Tinoceras)	705
proutii (Menodus)	633, 636	pugnax (Uintacyon)	760
proutii (Palæotherium)	636	pugnax (Uintatherium)	765
proutii (Symborodon)	637	pulcher (Centetodon)	740
proutii (Titanotherium)	636	pulvinulus (Peltodus)	276
Proviverra	751, 753	pumilis (Agriocherus)	665
Proviverridae	751	pumilis (Allacodon)	557
Proviverrini	751	pumilis (Cildastes)	467, 468
proximus (Petalodus)	278	pumilis (Eomeryx)	664, 665
Psammodontidae	284	pumilis (Graculavus)	533
Psammodontina	284	pumilis (Helohippus)	611
Psammodus	284, 289, 362	pumilis (Janassa)	277
Psammomys	729	pumilis (Lophiodon)	611
Psephodontinae	284	pumilis (Orohippus)	612
Psephodus	284	pumilis (Pachynolophus)	612
Pseudolemuridae	786	pumilis (Protoreodon)	665
Pseudelurus	782	pumilis (Tanaodus)	277
Pseudemys	449	pumilus (Aceratherium)	641, 643
pseudosagittatus (Petalorhynchus)	278	pumilus (Cænopus)	641
Pseudotrionychidae	446	punctatus (Adocus)	444
Pseudothyroptodus	393	punctiger (Trionyx)	454
Pseudotomus	723, 724	punctolineatum (Ceraterpeton)	414
Psittacodon	324	punctolineatum (Keraterpeton)	414, 415
Psittacotherium	574	punctulatus (Isodectes)	416
Pteranodon	507, 508	punctulatus (Plastomenus)	453
Pteranodontia	506, 507	punctulatus (Tuditanus)	415
Pteranodontidae	507	pungens (Mixodectes)	787
Pteranodontinae	507	pungens (Sinopa)	752
Pteraspidae	339	pungens (Stypolophus)	732
Pteraspis	339	Puppigerus	443
Pterichthyidae	342	pusilla (Balænoptera)	599
Pterichthyodes	343	pusilla (Clupea)	391
Pterichthys	341, 343, 350	pusillum (Cetotherium)	599
Pternodus	265, 270	pusillus (Chomatodus)	280
Pterodactylæ	506	pusillus (Copodus)	285
Pterodactyli	506	pusillus (Ctenodus)	355
Pterodactylidae	506	pusillus (Eschrichtius)	599
Pterodactylinae	506	pusillus (Hemiacodon)	794
Pterodactylus	461, 507, 508	pusillus (Petalodus)	280
Pteromyiinae	718	pusillus (Sagenodus)	355
Pteropappi	519	pustulosus (Acantholepis)	332
Pteropelyx	503	pustulosus (Dinichthys)	347
Pterosauri	506	pustulosus (Holoptychius)	358
Pterosauria	506	pustulosus (Petrodus)	296

	Page.		Page.
pustulosus (Spermatodus).....	795	radiatus (Ctenodus).....	351
Putorius.....	767, 768	radiatus (Dipterus).....	351
putorius (Spilogale).....	766	radiatus (Holoptychinus).....	359
Pycnodonta.....	372	radiatus (Tuditanus).....	415
Pycnodontes.....	372	Radiolepis.....	360
Pycnodontif.....	372	radulata (Anosteira).....	447
Pycnodontidae.....	372	radulina (Anosteira).....	447
Pycnodontoides.....	372	radulus (Rhineastes).....	382
Pycnodus.....	373	radulus (Trionyx).....	454
pygmæa (Didelphis).....	571	Raii.....	315
pygmæa (Didelphys).....	571	Ralida.....	315
pygmæum (Lophlotherium).....	793	Raja.....	315
pygmæus (Agorophius).....	589	Rajacel.....	315
pygmæus (Antiacodon).....	787, 793	Rajæ.....	315
pygmæus (Basilosaurus).....	589	Rajidæ.....	315
pygmæus (Doryodon).....	589	Rallidæ.....	528
pygmæus (Hyopsodus).....	793	Rallinæ.....	528
pygmæus (Sarcotemur).....	793	ramosum (Brontotherium).....	635
pygmæus (Saurocephalus).....	386	ramosum (Elotherium).....	656
pygmæus (Saurodon).....	386	ramosum (Titanotherium).....	635
pygmæus (Squalodon).....	589	ramosus (Cosoryx).....	633
pygmæus (Zeuglodon).....	589	ramosus (Dicrocerus).....	633
Pygopodes.....	523	ramosus (Merycodus).....	683
Pygopodiformes.....	523	ramosus (Orodus).....	295, 296
Pygopterus.....	367, 419	ramosus (Pelonax).....	650
Pythonidæ.....	479	ramosus (Procerulus).....	683
Pythonomorpha.....	464	Rana.....	425
Q.			
quadrans (Oxyrhina).....	306	randalli (Ctenacanthus).....	328
quadrata (Janassa).....	276	randallii (Spiraxis).....	338
quadrata (Testudo).....	451	randallii (Prospiraxis).....	338
quadratidens (Orycterocetus).....	596	Rangifer.....	686
quadratidens (Physeter).....	596	Raniceps.....	411
quadratus (Dipterus).....	355	Ranidæ.....	425
quadratus (Hadrianus).....	450	Ranina.....	425
quadratus (Manteodon).....	700	Rapaces.....	535
quadratus (Peltodus).....	276	rapax (Sinopa).....	752, 753
quadratus (Rhizodus).....	355	rapax (Stypolophus).....	752
quadratus (Sagenodus).....	355	rapax (Tylosaurus).....	473
quadrupes (Plesiomis).....	550	rapidens (Bolosaurus).....	428
quadruplicatum (Aceratherium).....	640	rapidens (Chionyx).....	428
quadruplicatus (Anchisodon).....	640	Raptores.....	535
quadruplicatus (Hyracodon).....	640	raricostatus (Cladodus).....	269
quadriseriatus (Orthacanthus).....	264	rarus (Allacodon).....	567
quadriseriatus (Pleuracanthus).....	264	rarus (Cimolopteryx).....	537
Quadrumania.....	785, 796	rarus (Menacodon).....	568
quadrupedans (Hoplichnus).....	546	rarus (Onychodectes).....	573
quebecensis (Glyptolepis).....	358	rarus (Stenacodon).....	794
quebecensis (Gyrolepis).....	359	rarus (Tapiravus).....	628
quebecensis (Holoptychinus).....	358	Rasores.....	533
quincunciatus (Sagenodus).....	355	Ratite.....	522
Querquedula.....	529	recta (Macropterna).....	548
quinquelateralis (Lamna).....	303	recta (Platypterna).....	549
quinquepedale (Diacium).....	477	recticonus (Galeocerdo).....	311
quivirensis (Trilodon).....	748	recticorne (Ceratopeton).....	414
R.			
Rabdiolepis.....	360, 363	reticulata (Amia).....	381
radians (Otolithus).....	408	rectidens (Carcharodon).....	308
radians (Bathmodon).....	699	rectidens (Hipparion).....	620
radians (Coryphodon).....	699, 700	rectidens (Hippotherium).....	620
radians (Dasyatis).....	319	rectidens (Myliobatis).....	320
radians (Hellobatis).....	319	rectidens (Osteocephalus).....	414
radians (Trygon).....	319	rectidens (Sphenodon).....	302
radiata (Ischyryza).....	398	rectiformis (Dimetrodon).....	432
		rectus (Acrodylacanthus).....	330
		rectus (Carcharodon).....	306
		rectus (Dactylodus).....	283
		rectus (Harpedactylus).....	549

	Page.		Page.
rectus (Homacanthus).....	329	rex (Edestosaur).....	467
rectus (Leptecodon).....	397	rex (Megalneusaurus).....	457
rectus (Marracanthus).....	329	rex (Nanosaurus).....	506
rectus (Mosasaurus).....	473	rex (Platygonus).....	661
rectus (Onchus).....	326	Rhabdoderma.....	363, 364
rectus (Oracanthus).....	335	rhabdodon (Catathleus).....	693
rectus (Polygonodon).....	473	rhabdodon (Peryptichus).....	693
rectus (Polyrhizodus).....	283	Rhabdofario.....	392
rectus (Titanichthys).....	348	Rhabdolepis.....	360, 368
recurvatus (Pachyrhizodus).....	388	Rhabdopelix.....	461
recurvicornis (Monoclonius).....	500	Rhabdosteldæ.....	590
recurvirostris (Protosphyrena).....	379	Rhabdosteus.....	593
recurvus (Notidanus).....	501	Rhachitomi.....	410, 417
reddingi (Leuciscus).....	396	Rhachitomus.....	421, 422
reddingi (Squalus).....	396	Rhadinacanthus.....	274
redfieldi (Catopterus).....	370	Rhadinichthys.....	367
redfieldi (Redfieldius).....	370	rhæas (Rhineastes).....	382
redfieldianum (Argozoum).....	540	rhambastes (Platyrhachis).....	477
redfieldianus (Argoides).....	540	Rhamphosaurus.....	471, 472
redfieldii (Ornithoidichthys).....	540	rhapheidolabis (Macropetalichthys).....	349
Redfieldius.....	370	rhaphiodon (Lamna).....	303
reflexum (Dinoceras).....	703	rhaphiodon (Odontaspis).....	303, 304
reflexus (Lambdodus).....	271	rhaphiodon (Scapanorhynchus).....	303, 304
regalis (Hesperornis).....	521	Rhegnopsis.....	600
regens (Barornis).....	522	Rhineastes.....	382
regularis (Callognathus).....	338	Rhineura.....	476
regularis (Hybodus).....	299	Rhinoceridae.....	462
regularis (Psephodus).....	288	Rhinocerinae.....	617
regularis (Teniodus).....	288, 291	Rhinoceroidea.....	647
regularis (Teniodus).....	288	Rhinoceros.....	636, 641, 643, 644, 645, 646, 647
reiteri (Chirotherium).....	542	Rhinocerotidae.....	642
relictum (Hipparion).....	620	Rhinocerotinae.....	647
relictum (Hippotherium).....	620	Rhinocerotoides.....	638
relictus (Paramys).....	719	Rhinoptera.....	321
relictus (Sciurus).....	719	Rhinosaurus.....	470, 471, 472
remex (Oestocephalus).....	414	Rhinoraji.....	315
remex (Sauroplesura).....	414	Rhipidistia.....	357
renidens (Myiodon).....	579	Rhipidopterygia.....	357
reniforme (Symmoriom).....	271	Rhiptoglossa.....	478
repanda (Catapleura).....	441	Rhiptoglossi.....	478
repanda (Propleura).....	441	Rhizodontidae.....	359
repandus (Coryphodon).....	700	Rhizodus.....	354, 355, 359, 360
repandus (Osteopygis).....	441	Rhizopriion.....	589
Reptilia.....	425	rhoadsii (Lutra).....	769
reticulata (Amia).....	581	Rhombodipteridae.....	361
reticulatum (Palaeoniscum).....	368	Rhombodipterini.....	361
reticulatum (Schistopleurum).....	581	Rhomboganoidei.....	374
reticulatus (Ctenodus).....	354, 355	rhomboldeus (Deltodus).....	289
reticulatus (Eryops).....	422	rhomboldeus (Psammodus).....	289
reticulatus (Glyptodon).....	581	rhomboldeus (Sandalodus).....	289
reticulatus (Psammodus).....	284	rhynchaus (Geolabis).....	739
reticulatus (Psephodus).....	288	Rhynchochelones.....	435
reticulatus (Rhizodus).....	555	rhynchosauroides (Macropterna).....	548
reticulatus (Sagenodus).....	355	Rhynchosuchidae.....	515
retroflexa (Oxyrhina).....	506	Rhynchocephalla.....	459
retroversa (Theroplesura).....	433	Rhynchodes.....	323
retusum (Hipparion).....	620	Rhynchodus.....	323
retusum (Hippotherium).....	620	Rhytidodon.....	509, 510
retusus (Cimolopteryx).....	537	Rhytina.....	584
reversus (Baseodon).....	465	Rhytinae.....	584
reversus (Drepanacanthus).....	334	Rhytinea.....	584
reversus (Phyonemus).....	334	Rhytinida.....	584
reversus (Xystracanthus).....	334	Rhytinidae.....	584
rex (Cimoliasaurus).....	457	rickaeckeri (Erimatopterus).....	404
rex (Clidastes).....	467	ringens (Hypisodus).....	672
rex (Dicotyles).....	661	ringuebergi (Dinichthys).....	347

Page.	Page.
Rinodus	322
riparia (Arvicola)	729
riparius (Anchippodus)	717
riparius (Limnocyon)	755
riparius (Telmatoeyon)	755
riparius (Viverravus)	755
rivi-petrosi (Cladodus)	269
robusta (Stenogale)	767
robustior (Hipposyus)	793
robustior (Notharectus)	793
robustum (Archæotherium)	655
robustum (Brontotherium)	635
robustum (Elotherium)	655
robustum (Hippidium)	618
robustum (Menotherium)	792
robustum (Oreodon)	666
robustum (Rhabdoderma)	361
robustum (Titanotherium)	635
robustum (Uintatherium)	702, 703
robustus (Achenodon)	654
robustus (Anthiodus)	279
robustus (Argoides)	540
robustus (Brontops)	635
robustus (Canis)	776
robustus (Ceratodus)	356
robustus (Cladodus)	268, 269, 270
robustus (Cœlacanthus)	364
robustus (Daphænus)	772
robustus (Daphænus)	772
robustus (Dipriodon)	541
robustus (Eohyus)	651
robustus (Histlophorus)	402
robustus (Hoplophoneus)	779
robustus (Hydrochærus)	734
robustus (Ischypterus)	376
robustus (Istiophorus)	402
robustus (Lambdodus)	271
robustus (Laopithecus)	792
robustus (Larus)	525
robustus (Limnohyus)	630, 631
robustus (Meniscœsus)	561
robustus (Morosaurus)	483
robustus (Mylocyprinus)	396
robustus (Oreodon)	666
robustus (Ornithichnites)	540
robustus (Pachycyon)	776
robustus (Palæocyops)	631
robustus (Paramys)	724
robustus (Perchærus)	657
robustus (Petalodus)	279
robustus (Pliohippus)	618
robustus (Procamelus)	677, 678
robustus (Protolabis)	678
robustus (Pycnodus)	373
robustus (Semionotus)	376
robustus (Thinohyus)	657
robustus (Tinohyus)	657
robustus (Tinodon)	567
robustus (Venustodus)	287
robustus (Xiphias)	402
Rodentia	717
rogersianus (Palamopus)	548
rogersianus (Sillimanus)	548, 561
rogersi (Ornithoidichnites)	548
rogersii (Hyposaurus)	516
romingeri (Cladodus)	269
rondeletii (Carcharodon)	308
rosæ (Sebastodes)	406
Rosmaridæ	793
Rosmarus	794
rosmarus (Dicynodon)	430
rosmarus (Odobenus)	784
rosmarus (Odobenus)	784
rosmarus (Phoca)	784
rosmarus (Trichechus)	784
rostratum (Tomitherium)	788
rostratus (Ancodon)	653
rostratus (Ancodus)	653
rostratus (Bothrolabis)	658
rostratus (Phytosaurus)	510
rostratus (Rhytidodon)	510
rotundiceps (Cladodus)	272
rotundus (Anogmus)	393
rotundus (Thryptodus)	393
rudis (Glymmatacanthus)	331
rütimeyeranus (Chriacus)	762
rütimeyeranus (Miocænus)	762
rütimeyeranus (Paradoxodon)	762
rufus (Felis)	783
rufus (Felis)	782, 783
rufus (Lynx)	783
rugatum (Mastodon)	709
rugatus (Ziphacodon)	761
rugosidens (Mammut)	712
rugosidens (Mastodon)	712
rugosum (Holonema)	350
rugosum (Scyllium)	310
rugosus (Chitinodus)	298
rugosus (Crocodilus)	513
rugosus (Crocodylus)	513
rugosus (Emys)	448
rugosus (Glyptosaurus)	475
rugosus (Helodus)	287
rugosus (Myllobatis)	320
rugosus (Pæcilodus)	293
rugosus (Polyptychodon)	513
rugosus (Psammodus)	294
rugosus (Pterichthys)	350
rugosus (Scylliorhinus)	310
rugosus (Thecachampsæ)	513
Ruminantia	681
rupertianus (Elephas)	709
ruschenbergeri (Delphinapterus)	592
ruschenbergeri (Priscodelphinus)	592
ruschenbergeri (Tretosphys)	592
rusticus (Goniacodon)	748
rusticus (Merychyus)	668
rusticus (Merychochærus)	668
rusticus (Miocænus)	748
rusticus (Trilodon)	748
Ruttilus	395
Rutlodon	509, 510
ryderanus (Agriochærus)	664
ryderanus (Coloreodon)	664
Rytina	584
S.	
sabinii (Xema)	525
Saccomyidæ	730
sacheri (Odontaspis)	513
sævus (Ælurodon)	774
sævus (Canis)	774

	Page.		Page.
Sagenodus.....	353, 419	Schistodelta.....	723
salamandroides (Diplocaulus).....	416	Schistopleurum.....	530, 531
Salientia.....	424	schlosserianus (Chriacus).....	745
Salmonel.....	392	schlosserianus (Epichriacus).....	745
Salmones.....	392	schucherti (Hadrianus).....	450
Salmonidæ.....	387, 392	schucherti (Pterospheus).....	479
sanctæfidel (Panolax).....	736	Sciænide.....	405
sancti-ludovici (Asteroptychius).....	330	Sciænidea.....	405
sancti-ludovici (Deltodopsis).....	291	Sciænoidel.....	405
sancti-ludovici (Pæcilodus).....	293	scitulus (Agassizodus).....	296
Sandalodus.....	288, 289, 290, 292	scitulus (Campodus).....	296
Saniwa.....	475	scitulus (Orodus).....	296
Saniwa.....	475	Sciuravus.....	723, 724
saponensis (Champeosaurus).....	461	Sciuride.....	718
Sarcolemur.....	793	Sciurine.....	719
sarcophagus (Zatomus).....	490	Sciurini.....	719
Sarcothraustes.....	748	sciuroides (Paramys).....	724
sarcululus (Antilodus).....	279	sciuroides (Plesiartomys).....	724
sarcululus (Petalodus).....	279	Sciurodon.....	718
Sarcura.....	315	Sciuromorpha.....	718
Sardinia.....	391	Sciurormys.....	725
sargenti (Lithophis).....	479	Sciurospalacoides.....	730
Sauranodon.....	463	Sciurus.....	719
Sauranodonta.....	461	Sclerodermi.....	407
Sauranodontidæ.....	463	sclerops (Pappichthys).....	381
Sauria.....	473	Scolecophagus.....	537
sauriformis (Apsopelix).....	390	Scolopacide.....	526
Sauril.....	474	Scolopacinae.....	526
Sauripteris.....	361	Scolopacoides.....	526
Sauripterus.....	361	Scolopacoides.....	526
Sauritolepis.....	361	Scolopax.....	527
Saurischia.....	482, 487	scolopax (Belodon).....	510
Saurocephallidæ.....	383	scolopax (Phytosaurus).....	510
Saurocephalinae.....	385	Scombroides.....	402
Saurocephalus.....	379, 384, 385, 390	Scorpeni.....	406
Saurocetus.....	588	Scorpenide.....	406
Saurodipteridæ.....	361	Scorpenoides.....	406
Saurodipterini.....	361	scotti (Alces).....	635
Saurodon.....	385, 386, 390	scotti (Equus).....	624
Saurodontidæ.....	378, 383, 385	scotti (Prodaphnus).....	760
saurogathus (Dissacus).....	749	scottianus (Microsops).....	791
Sauroidenites.....	538, 541, 548, 549, 550, 553	serofa (Sus).....	661
Sauropleura.....	414, 415, 419	sculpta (Janassa).....	277
Sauropleuridæ.....	419	sculptus (Ctenacanthus).....	328
Sauropoda.....	432	sculptus (Halodon).....	561
Sauropterus.....	361	sculptus (Meniscoessus).....	561
Sauropterygia.....	455	sculptus (Tanaodus).....	277
Sauropus.....	548, 550	scutata (Amia).....	381
Saururæ.....	518	scutellata (Sauropleura).....	419
sauvageanus (Miplosus).....	405	scutellatus (Colosteus).....	119
sayrei (Glyptopomus).....	362	scutellatus (Pygopterus).....	419
scalare (Herpetotherium).....	571	scutigerum (Palæoniscum).....	368
scalare (Peratherium).....	571	scutigerus (Palæoniscus).....	368
scalaris (Didelphis).....	571	scutumantiquum (Trionyx).....	454
scalaris (Didelphys).....	571	Scyllæmus.....	399
Scalops.....	738	Scyllia.....	310
scalper (Megalonyx).....	578	Scyllidæ.....	310
scalper (Teniolabis).....	562	Scylliolamnidæ.....	310
scambus (Anomcepus).....	539	Scylliorhinidæ.....	310
Scansores.....	536	Scylliorhininæ.....	310
Scapanorhynchus.....	303, 304	Scylliorhinus.....	310
Scaphaspis.....	539	Scyllium.....	310
Scapherpeton.....	424	Seymni.....	314
Scaphorhynchus.....	371	Seymnidæ.....	314
Scaumenacia.....	353	Seymnoidæ.....	314
Schastasaurus.....	463	Seymnorhinus.....	314

	Page.		Page.
Scymnus	314	septentrionalis (Glyptodon)	581
Sebastodes	406	serialis (Plastomenus)	453
secans (Pantolestes)	649	sericeus (Phareodus)	393
secans (Rhynchodus)	323	sericodon (Crocodylus)	513
secans (Trigonolestes)	649	sericodon (Thecachampsia)	513
sector (Otolithus)	409	serotinus (Titanotherium)	634
sectorius (Anisonchus)	696	serotinus (Allops)	634
sectorius (Hyænocyon)	770	serotinus (Megacerops)	634
sectorius (Liodon)	472	serotinus (Menodus)	634
sectorius (Miocænus)	695	serotinus (Nystilestes)	742
sectorius (Tylosaurus)	472	serpens (Phlegethontia)	411
secundaria (Sinopa)	752	Serpentes	478
secundarius (Prototomus)	752	serpentina (Chelydra)	446
secundarius (Stypolophus)	752	serpentinus (Elasmosaurus)	458
securis (Petalodus)	278	serra (Acrodobatis)	310
sedens (Ornithomimus)	494	serra (Ginglymostoma)	310
seeleyanus (Hypsirophus)	496	serra, (Hemipristis)	313
seeleyanus (Stegosaurus)	496	serrata (Gnathorhiza)	365
segne (Ulnatherium)	702	serrata (Eurylepis)	366
segnis (Asthenodon)	570	serrata (Haplolepis)	366
segnis (Chamops)	474	serrata (Mecolepis)	366
segnis (Ditetradon)	702	serrata (Priscacara)	401
sejunctus (Merychippus)	618	serrata (Sphyrna)	314
sejunctus (Protohippus)	618, 618	serrata (Thecachampsia)	513
Selacha	274	serratus (Callognathus)	338
Selachia	275	serratus (Cimolomys)	560
Selachii	262, 274	serratus (Crocodylus)	513
Selachoides	275	serratus (Ctenacodon)	559
Selenacodon	560, 561	serratus (Ctenodus)	555
Selenichnus	551	serratus (Doridon)	587
Selenodonta	681	serratus (Doryodon)	587
selenodus (Polymastodon)	563	serratus (Eurylepis)	366
selliformis (Chomatodus)	280	serratus (Exostinus)	476
sellowi (Glyptodon)	580	serratus (Halodon)	560
selluliformis (Lisgodus)	281	serratus (Lisgodus)	281
selwynianum (Brontotherium)	635	serratus (Myliobatis)	320
selwynianum (Titanotherium)	635	serratus (Sagenodus)	355
selwynianus (Menodus)	635	serratus (Thecachampsia)	513
semianiceps (Cimolichthys)	587	serratus (Triceratops)	499
semianiceps (Empo)	387	serratus (Zatrachys)	422
semicinctus (Bathmodon)	700	serridens (Belodon)	510
semicinctus (Coryphodon)	699, 700	serridens (Eurydorus)	510
semicinctus (Leptomeryx)	672	serridens (Mammut)	712
semicinctus (Loxolophodon)	700	serridens (Mastodon)	710, 712
semicircularis (Ctenopterygius)	282	serridens (Phytosaurus)	510
semicircularis (Peripristis)	282	serridens (Tetrabelodon)	712
semicostatus (Anaclitacanthus)	328	serrifer (Toxochelys)	442
semicylindricus (Psammodus)	289	serrula (Oestoccephalus)	415
semibians (Homogalax)	627	serrula (Ptyonius)	415
semibians (Systemodon)	627	serrulatus (Holopterygius)	359
Semionotidae	374	serus (Dicotyles)	659
Semionotus	375	serus (Dinobastis)	781
sempalmatus (Alces)	685	serus (Protomeryx)	676
sempalmatus (Cervus)	685	serus (Tayassu)	659
semiplicatus (Equus)	624	sesquipedalis (Mylagaulus)	721
semiradicatus (Dimetrodon)	432	seversum (Hipparion)	621
semiserratus (Carcharodon)	507	seversum (Hippotherium)	620, 621
semistriatus (Acanthodes)	273	seversus (Stylionus)	621
semistriatus (Acanthosaurus)	273	sexcuspiis (Synonodon)	692
semistriatus (Enchodus)	389	sexspinosus (Pliolarchus)	405
semistriatus (Phasganodus)	539	Shastasaurus	463
Semotilus	396	shaughnessiana (Emys)	448
senex (Moropus)	691	sheareri (Oricardinus)	388
senex (Tillomys)	724	sheareri (Pachyrhizodus)	388
septaria (Emys)	448	sheari (Pachyrhizodus)	388
septemspinosus (Pliolarchus)	406	shepardii (Dibelodon)	718

	Page.		Page.
shepardi (Mammut)	712	simplicidens (Equus)	618
shepardi (Mastodon)	710, 712	simplicidens (Plihippus)	618
shepardi (Tetrabelodon)	712	Simplicidentata	718
shepardi (Tetracaulodon)	710, 712	simum (Arctotherium)	763
Shepardia	551	simus (Arctodus)	763
sheppardianus (Charadrius)	526	simus (Bathmodon)	699
sherwoodi (Ctenodus)	352	simus (Coryphodon)	699
sherwoodi (Dipterus)	352	simus (Cyclopidius)	671
sherwoodi (Gyracanthus)	335	simus (Lestosauros)	470
shirleyensis (Plesiosauros)	456	simus (Platecarpus)	470
shoshonense (Titanotherium)	633	simus (Spaniodon)	391
shoshonensis (Catostomus)	394	simus (Tremarctos)	763
shoshonensis (Dæodon)	633	sinclairii (Hipparion)	621
shumardii (Enchodus)	389	sinclairii (Hippotherium)	621
Sicarius	278	singularis (Coryphodon)	700
sicarius (Crocodylus)	513	singularis (Heptodon)	625
sicarius (Thecachampsia)	513	singularis (Hyrachyus)	625
siderius (Asteracanthus)	531	singularis (Pachynolophus)	625
siderius (Bythiacanthus)	331	Sinopa	751, 752, 753, 758
sideropellus (Diadectes)	427	sinosus (Ambloctonus)	756
Sigmodontes	726, 727	sinosus (Amblyctonus)	756
Sigmodontinae	726	sinuatus (Cladodus)	272
sigmodus (Arvicola)	728	sinuatus (Cladoselache)	272
sigmodus (Microtus)	728	Siphonocetus	599
sigmodus (Plitymys)	728	siphunculus (Mesocetus)	600
Sigmogomphus	722	Sirenia	562
sigmoides (Onychodus)	563	Sirenidae	553, 556
sillimani (Brontozoum)	543	sirenoides (Prorostomus)	532
sillimani (Hydrarchos)	587	Sirenoides	533
sillimani (Ornithodichnites)	543	Sironectes	468
sillimanii (Isurus)	307	Smillerpeton	413
sillimanii (Oxyrhina)	307	Smillerpetum	413
sillimanium (Brontozoum)	543	Smilodon	778, 780, 781
Sillimanius	548, 551, 552	smithii (Rhineastes)	382
silovianus (Dictyodus)	399	smithsonianus (Larus)	525
silovianus (Sphyrænodus)	399	smockii (Edaphodon)	324
Siluridae	382	smockii (Ischyodus)	321
Siluroidei	381	snoviana (Testudo)	451
Simædosauria	460	snovianum (Caryoderma)	451
Simædosaurus	460	snovii (Cimoliasaurus)	459
similis (Antliodus)	279	snyderi (Anomodon)	741
similis (Ctenacanthus)	328	socialis (Meniscotherium)	606
similis (Otolithus)	408	socialis (Eporeodon)	667
similis (Petalodus)	279	socialis (Hyracops)	606
similis (Vaticinodus)	290	socialis (Palæochoerus)	657
Simocyonidae	770	socialis (Perchoerus)	657
Simocyoninae	770	socialis (Thinohyus)	637
simplex (Antliodus)	279	socialis (Thinohyus)	637
simplex (Calamodon)	574	sodalis (Aquila)	536
simplex (Chriacus)	744	sodalis (Myiodon)	579
simplex (Clastes)	377	solaris (Crocodylus)	513
simplex (Lepistosteus)	377	solidula (Diphrissa)	323
simplex (Oxylenus)	744	solidulus (Edaphodon)	325
simplex (Petalodus)	279	solidulus (Ischyodus)	325
Simplex (Platyxystrodus)	290	Solidungula	608
simplex (Protapirus)	628	solus (Anchisaurus)	491
simplex (Protochriacus)	744	Somniosidae	314
simplex (Stemmatias)	298	sophiæ (Pheobodus)	270
simplex (Stemmatodus)	298	sopita (Propleura)	441
simplex (Styllinodon)	574	sopita (Chelone)	441, 442
simplex (Vaticinodus)	290	sopitus (Osteopygia)	441
simplex (Xenodolamia)	309	Sorex	738
simplex (Xystrodus)	290	Soricidae	738
simplicidens (Aceratherium)	643	Spalacotheriidae	566, 567
simplicidens (Blarina)	738	Spalacotheriinae	567
simplicidens (Cænopus)	643	Spalacotherium	567

	Page.		Page.
Spaniodon.....	391	sphenops (Diplocynodus).....	514
Sparidæ.....	405	sphenops (Pterodon).....	514
Sparodus.....	411	Sphenosaurus.....	515
Sparoidæ.....	406	Spheropezium.....	552
Sparoidel.....	405	Spheropezopus.....	552
Spatula.....	529	Sphyræna.....	399, 399, 400
spatula (Pliauchenla).....	680	Sphyrænidæ.....	399
Spatularia.....	571	Sphyrænodus.....	399
spatularius (Esthonyx).....	716	Sphyrænoidel.....	399
spatulatus (Deltodus).....	293	Sphyrna.....	309, 314
spatulatus (Llognathus).....	345	Sphyrnidæ.....	314
spatulatus (Lispognathus).....	345	Sphyrninæ.....	314
spatulatus (Petalorhynchus).....	278	splierianus (Microsypops).....	791
spatulatus (Sandalodus).....	289	Spilogale.....	766
speciosa (Cotylops).....	668	Spinacidae.....	314
speciosa (Rabdolepis).....	360	spinosis (Belosophys).....	592
speciosa (Radlilepis).....	360	spinosis (Cladodus).....	269
speciosa (Sphyræna).....	399	spinosis (Ixacanthus).....	592
speciosum (Hipparion).....	621	spinosis (Priscodelphinus).....	592
speciosum (Hippotherium).....	621	Spiraxis.....	338
speciosus (Ctenacanthus).....	323	splendens (Cladodus).....	269
speciosus (Hippodon).....	621	sponsa (Aix).....	529
speciosus (Mesacodon).....	794	Sporetodus.....	317
speciosus (Dietodus).....	399	springeri (Chitnodus).....	293
speciosus (Sphyrænodus).....	399	springeri (Cladodus).....	269
spectabilis (Ctenacanthus).....	323	springeri (Deltotychius).....	294
spectabilis (Leptochærus).....	657	springeri (Phœbodus).....	270
spectans (Hippidion).....	619	springeri (Pœcilodus).....	293
spectans (Hippidium).....	619	springeri (Pristicladodus).....	270
Spectans (Pilohippus).....	619	springeri (Psammodus).....	285
speirianum (Tinoceras).....	705	springeri (Pternodus).....	270
speirianum (Uintatherium).....	705	Squalacel.....	275
speirianus (Loxolophodon).....	705	Squal.....	275
speirianus (Microsypops).....	791	squaliceps (Hypopnous).....	429
speleum (Osmotherium).....	766	Squalide.....	275
speleus (Myxophagus).....	765	squalidens (Daptophilus).....	780
speleum (Auloxodon).....	577	squalidens (Deinictis).....	780
speleus (Odocoileus).....	684	squalidens (Dinictis).....	780
speothen (Arvicola).....	729	Squalius.....	396
speothen (Isodonta).....	729	Squalodon.....	588, 589, 590, 591
speothen (Microtus).....	729	Squalodontidae.....	588
Spermatodus.....	795	Squaloidea.....	314
spherodactylus (Thenaropus).....	562	Squalus.....	304, 307, 308, 309
Sphærodontes.....	374	Squamata.....	403
Sphærodontidæ.....	374	squamifrons (Asineops).....	404
Sphæropezium.....	552	Squamipinnis (Oligoplarchus).....	400
Sphagepœa.....	325	squamosus (Gampacanthus).....	336
Sphargida.....	436	squankensis (Crocodylus).....	513
Sphargidæ.....	436	squankensis (Thecachampsæ).....	513
Sphargididæ.....	436	Stagodon.....	564
Sphargis.....	436	Stagodontidæ.....	564
Sphenacanthus.....	274	stantoni (Cœlodus).....	373
Sphenacodon.....	434	stavelianus (Crocodylus).....	513
Sphenacodontidæ.....	431	Steganopoda.....	532
sphenocerus (Agathaumas).....	500	Steganopodes.....	532
sphenocerus (Monoclonius).....	500	Steganopus.....	527
Sphenocœlus.....	691	Stegocephali.....	409, 410, 417
Sphenodon.....	460	Stegodon.....	712
sphenodon (Glyptosaurus).....	475	Stegomus.....	511
sphenodon (Megalonyx).....	578	Stegosauri.....	495
Sphenodus.....	302	Stegosauria.....	495
sphenodus (Hipparion).....	621	Stegosauridæ.....	495
sphenodus (Hippotherium).....	621	Stegosauroidæ.....	495
Sphenonchus.....	299	Stegosaurus.....	495
Sphenophorus.....	337, 338	stellatus (Batacanthus).....	334
sphenops (Diplocynodus).....	514		

	Page.		Page.
stellatus (Cosmacanthus)	330	strenuus (Taphrosphys)	438
stellatus (Deltodus)	292	Strepsodus	354, 360
stellatus (Drepanacanthus)	334	Streptostylia	463
stellatus (Geisacanthus)	330	striatula (Zygoramma)	446
stellatus (Phyonemus)	333	striatulus (Diplacanthus)	274
stelleri (Eumetopias)	783	striatus (Bolosaurus)	434
stelleri (Otaria)	783	striatus (Cladodus)	270
stelleri (Rhytina)	584	striatus (Diplacanthus)	274
Stemmatias	298	striatus (Diplodus)	266
Stemmatodus	298	striatus (Dittodus)	266
Stenacanthus	343, 344	striatus (Docodon)	568
Stenacodon	794	striatus (Pantosaurus)	456
Stenocfiber	722	striatus (Parasaurus)	456
stenobryus (Edaphodon)	325	striatus (Petalorhynchus)	278
stenobryus (Ischyodus)	325	striatus (Platygonus)	661
stenocephalus (Asteroosteus)	349	Strigea	586
stenocephalus (Enhydrocyon)	770	Strigidae	555, 586
Stenodaetylus	561	strigidens (Hoplophoneus)	779
stenodon (Plinthicus)	321	strigidens (Machærodus)	779
stenodon (Tinosaurus)	476	Strigilina	275, 276
Stenogale	767	strigilina (Janassa)	276
Stenognathus	348	striolata (Eurylepis)	366
stenognathus (Protagonodon)	603	striolata (Haplolepis)	366
stenops (Chriacus)	745	Struthionidae	522
stenops (Cildastes)	467	struthionidea (Palæonornis)	537
stenops (Edestosaurus)	467	Stylacodon	569
stenops (Hypdrophus)	496	Stylacodontidae	569
stenops (Loxolophodon)	705	Stylemys	439, 450
stenops (Stegosaurus)	496	Stylinodon	574
stenops (Tetheopsis)	705	Stylinodontia	572
stenops (Tinoceras)	705	Stylinodontidae	573
stenops (Uinatherium)	705	Stylodon	569
stenopsis (Clonodon)	504	Stylodontes	574
Stenopterodus	291	Stylodontidae	570, 574, 569
stenopus (Cladodus)	270	Stylonius	619, 620, 621
Stenorhynchus	785	Stypolophus	739, 761
stenus (Belosphys)	593	Styptobasis	272
stenus (Ixacanthus)	593	subæquans (Bothrolabis)	658
stenus (Priscodelphinus)	593	subæquans (Hyootherium)	658
Stephanodon	768	subæquans (Palæochærus)	658
Stereodectes	720	subauriculatus (Carcharodon)	308
Stereognathidae	558	suberenatus (Galeocerdo)	312
Stereospondyli	417	sublævis (Eurythorax)	416
Sterna	525	sublunata (Janassa)	277
sternbergii (Gomphotherium)	676	sublunata (Tanaodus)	277
sternbergii (Hedronchus)	326	subquadrata (Euprotoponia)	603
sternbergii (Poëbrotherium)	676	subquadrata (Protoponia)	603
sternbergii (Protomeryx)	676	subquadratus (Coryphodon)	700
Steropezium	551, 552	subquadratus (Manteodon)	700
Steropoides	551	subquadratus (Tetraclenodon)	603
Sterrhopholus	499	subteres (Orodus)	296
stertzeri (Dinichthys)	346	subtrigonus (Miocænus)	746
Stethacanthus	333	subtrigonus (Tricentes)	746
stevensoni (Ctenoptychius)	282	subulata (Glyphis)	313
stevensoni (Emys)	448	subulata (Lamna)	303
stevensoni (Herpetotherium)	571	subulatus (Cladodus)	270
stevensonianus (Emys)	447, 448	subulatus (Crocodylus)	513
Stibarus	672	subulatus (Diploynodus)	513
strangulatus (Diastichus)	395	subulatus (Ichthyosuchus)	513
strata (Isocampe)	546	Subursi	764
Stratodontidae	387	successor (Mastodon)	712
Stratodus	387	succinctus (Cladodus)	270
Strenua (Sinopa)	762	Suchoprior	490
strenuus (Proconias)	438	Suidæ	653
strenuus (Prototomus)	768	Suinæ	661
strenuus (Stypolophus)	752, 753	Sula	582

	Page.
sulcata (Lamna)	504
sulcata (Schistodelta)	728
sulcata (Taxidea)	765
sulcatus (Antliodius)	279
sulcatus (Anrodemus)	489
sulcatus (Centemnodon)	510
sulcatus (Cimolichthys)	387
sulcatus (Helodus)	287
sulcatus (Holomeniscus)	679
sulcatus (Labrosaurus)	489
sulcatus (Leptotragulus)	674
sulcatus (Machæracanthus)	332
sulcatus (Otolithus)	408
sulcatus (Palæosaurus)	510
sulcatus (Parameryx)	674
sulcatus (Petalodus)	279
sulcatus (Phenacodus)	606
sulcatus (Platemys)	459
sulcatus (Prochonias)	459
sulcatus (Stegosaurus)	496
sulcatus (Tæniolabis)	562
sulcatus (Taphrosphys)	439
sulcatus (Triceratops)	499
sulcidens (Carcharodon)	308
sulcidens (Mylodon)	479
sulcidens (Suchoplon)	590
sulciferus (Crocodylus)	513
sulcifrons (Pleuroleues)	731
Sulidæ	532
sullivanti (Agassichthys)	349
sullivanti (Macropetalichthys)	349
Suoidea	653
superbum (Elotherium)	655, 656
superbus (Eporeodon)	668
superbus (Euclrotaphus)	668
superbus (Meleagris)	534
superbus (Merycocherus)	668
superbus (Oreodon)	668
superbus (Paramys)	724
supercilliosum (Aceratherium)	646
supercilliosum (Peraceras)	646
supercilliosum (Teleoceras)	646
supercilliosus (Belodon)	510
supercilliosus (Phytosaurus)	510
supercilliosus (Rhinoceros)	646
supremus (Camarasaurus)	496
supremus (Hadrohyus)	671
supremus (Merychippus)	618
supremus (Protohippus)	618
surgens (Helcura)	546
surinamensis (Hydrochelidon)	525
sursiplana (Balænoptera)	600
Sus	659, 661, 690
syceus (Menodus)	633
syceus (Titanotherium)	633
Syclium	728
sydenensis (Palæosauropus)	548
sydenensis (Sauropus)	548
Syllæmus	399, 795
Syllomus	442
Syllophodus	725
sylvaticum (Hyracotherium)	612
sylvaticum (Lophiotherium)	611, 612
sylvaticum (Orotherium)	611
sylvaticus (Lepus)	736

	Page.
<i>sylvaticus</i> (<i>Orohippus</i>)	612
<i>sylvaticus</i> (<i>Pachynolophus</i>)	612
<i>sylvaticus</i> (<i>Ptilolophus</i>)	612
<i>sylvestre</i> (<i>Dromatherium</i>)	555
<i>sylvestris</i> (<i>Agathaumas</i>)	498
<i>sylvestris</i> (<i>Glyptosaurus</i>)	475
<i>sylvestris</i> (<i>Harpalodon</i>)	761
<i>Symborodon</i>	635, 636, 637
<i>symmetricus</i> (<i>Psephodus</i>)	298
<i>symmetricus</i> (<i>Stemmatias</i>)	298
<i>symmetricus</i> (<i>Stemmatodus</i>)	298
<i>Symmorium</i>	271
<i>Symphypoda</i>	487
<i>Symphyrphus</i>	484
<i>symphysis</i> (<i>Pappichthys</i>)	331
<i>Syneonodon</i>	692
<i>Synentognathi</i>	397
<i>Synoplotharium</i>	750
<i>Syntegmodus</i>	390
<i>syntheticus</i> (<i>Adocus</i>)	444
<i>Synthetodus</i>	356
<i>Systemodon</i>	608, 610, 627
<i>Systemodontinae</i>	608, 627

T.

tabulatus (Tuditanus)	415
Tachymys	724
Tæniodonta	572
Tæniodus	288, 291
Tæniolabris	562
Tæniura	319
tajacu (Dicotyles)	659
tajacu (Sus)	659
tajacu (Tayassu)	659
tajassus (Dicotyles)	659
Taligrada	692
Talpa	737
Talpavus	738
Talpidae	737
Talpina	757
talpivorus (Aphelophis)	480
talpoides (Thomomys)	730, 731
Tamias	720
Tamlobatidae	315
Tamlobatis	315
Tanaodus	276
Tanyops	628
Tanystropheus	493
taoensis (Polymastodon)	562, 563
Taphroscarus	456
Taphrophys	438
tapiacitis (Meniscotherium)	605
Tapiravus	628
Tapiridae	624, 626
Tapirinae	626
tapirinum (Hyracotherium)	610
tapirinus (Eohippus)	610
tapirinus (Orohippus)	610
tapirinus (Systemodon)	610
Tapiroidea	624
tapiroides (Mastodon)	708
tapiroides (Tetracaulodon)	709
Tapirulus	625
Tapirus	628, 708, 709
tapyroides (Tetracaulodon)	709

	Page.		Page.
Tarandus.....	696	tenuicristatus (Venustodus)	287
tarandus (Cervus).....	696	tenuirostris (Ichthyotringa)	397
tarandus (Rangifer)	696	tenuirostris (Microconodon)	556
Tardigrada.....	575	tenuis (Asteroptychius)	330
Tarsidae.....	796	tenuis (Batodon).....	565
Tarsine.....	796	tenuis (Carcharias).....	515
Tarsodactylus.....	552	tenuis (Carcharhinus)	513
tau (Equus).....	624	tenuis (Grallator).....	545
Taurus.....	690	tenuis (Ornithoidichnites)	549
Tautoga.....	401	tenuis (Ornithomimus)	494
Taxcopoda.....	601	tenuis (Platypterna)	549
Taxidea.....	765	tenuis (Prionace).....	513
Taxistia.....	557	tenuis (Prionodon).....	515
taxoides (Elurodon).....	774	tenuis (Protosphyrena).....	579
Taxotherium.....	758	tenuissimus (Harpedactylus)	545
taxus (Taxidea).....	765	tenuitectus (Bolbodon).....	427
Taxymys.....	724	teres (Cosoryx).....	683
Tayassu.....	659, 795	teres (Dicrocerus).....	683
Tayassuina.....	658	teres (Iguanavus).....	474
taylori (Bothriolepis).....	361	teres (Merycodus).....	683
taylori (Holoptychius).....	361	terrærubra (Meniscotherium)	605
taylori (Sauripteris).....	361	Terrapene.....	419
taylori (Sauripterus).....	361	Terrapenidae.....	447
taylori (Sauropterus).....	361	terrelli (Cladodus).....	270
Tectospondyli.....	514, 515	terrelli (Dinichthys)	347
tectulus (Holcodus).....	471	terrelli (Myllostoma).....	350
tectulus (Lestocaurus).....	471	terrelli (Ponerichthys).....	347
tectulus (Platecarpus).....	471	terrestris (Emys).....	448
tectum (Scapherpeton).....	424	terrestris (Hippopotamus).....	628
Tegeolepis.....	368	terrestris (Palæotheca).....	448
tehuanus (Cosoryx).....	683	terrestris (Tapirus).....	628
tehuanus (Dicrocerus).....	683	testis (Coryphodon).....	700
tehuanus (Merycodus).....	683	testis (Dapedoglossus).....	395
Telacodon.....	566	testis (Metalophodon).....	700
Teleoceras.....	646, 647	testis (Phareodus).....	398
Teleoceratine.....	646	testudinaria (Piscacara).....	402
Teleodus.....	638	Testudinata.....	434, 436, 449
Teleopternus.....	680	Testudinea.....	449
Teleostei.....	358, 357	testudinea (Emys).....	448
Teleostomi.....	358, 356	testudinea (Notomorpha).....	448
telleri (Phlyctenacanthus).....	332	Testudines.....	434
Telmalestes.....	793	testudineus (Otocelus).....	430
Telmatherium.....	631, 632	Testudinidae.....	447, 449
Telmatocon.....	755	Testudinina.....	449
Telmatolestes.....	793	Testudo.....	450, 451
Telmatornis.....	528	Tetheodus.....	389
Telmatotherium.....	631, 632	Tetheopsis.....	703, 705
temerarius (Canis).....	776	Tetrabelodon.....	707, 710, 711, 712
Temnocon.....	773	Tetracaulodon.....	707, 708, 709, 710, 712
temnodon (Cynodictis).....	711	Tetracaulonodon.....	608
Temnospondyli.....	417	tetracus (Enchodus).....	589
temporalis (Merycochoerus).....	668	tetractylus (Ornithichnites)	561
tenax (Dryolestes).....	569	tetractylus (Ornithoidichnites)	561
tenebrosus (Crocodylus).....	515	tetractylus (Sillimanius).....	551
tenebrosus (Holops).....	515	tetractylus (Arvicola).....	729
tenebrosus (Notharctus).....	789	tetractylus (Plitymys).....	729
tenebrosus (Thoracosaurus).....	515	tetracus (Enchodus).....	389
tenellus (Asteroptychius).....	330	Tetragonolepis.....	576
tener (Ichthyornis).....	520	tetragonus (Mylohyus).....	600
Teniodus.....	288, 292	tetragonus (Tayassu).....	600
tenuiceps (Eurynotus).....	576	Tetralophodon.....	707, 710, 711
tenuiceps (Ischypterus).....	576	Tetralonidae.....	584
tenuiceps (Semionotus).....	576	Tetrodonina.....	408
tenuicorne (Ceraterpeton).....	414	texana (Lamna).....	503
tenuicorne (Keraterpeton).....	414	texanus (Anchippus).....	613, 615
tenuicostatus (Hybocladodus).....	271	texanus (Ancistronodon).....	408

	Page.		Page.
texasus (Grypodon).....	408	Tinohyus.....	657
texensis (Diaceranodus).....	265	Tinosaurus.....	476
texensis (Didymodus).....	265	tisonensis (Onychodectes).....	573
texensis (Pleuracanthus).....	265	Titanichthys.....	348
texianus (Elephas).....	713	Titanophis.....	478
textilis (Nodosaurus).....	497	Titanops.....	634, 635
textilis (Sagenodus).....	355	Titanosaurus.....	484
thærodactylum (Spheropezium).....	552	Titanotheriidae.....	629
thærodactylus (Spheropezopus).....	552	Titanotherina.....	633
Thalassemydidae.....	440	Titanotherium.....	613, 633, 634, 635, 637, 638, 704
thamias (Portheus).....	384	Titanotheroidea.....	629
thamias (Xiphactinus).....	384	tolliapicus (Carcharodon).....	307
thamius (Saurocephalus).....	384	Tomarectus.....	775
Thecachampsæ.....	512, 513, 515	Tomolops.....	581
Thecodontia.....	509	Tomitherium.....	744, 788, 789, 790
Thecodontosaurus.....	492	Tomodon.....	473
Thecophora.....	436	Tomodus.....	291
Thenaropus.....	542, 552	Tomolabis.....	621, 623
Theriodontia.....	450	Tomomys.....	730
theriostaculodon (Missourium).....	709	Torosaurus.....	499
Theromora.....	426, 430	torquatus (Dicotyles).....	659
Theromorpha.....	426	torquatus (Sus).....	659
Theropleura.....	433	torus (Symborodon).....	637
Theropoda.....	487	tortor (Clidastes).....	467
Thespesius.....	502, 503	tortor (Edestosaurius).....	467
theta (Clupea).....	391	tortulus (Megalonox).....	578
theta (Diplomystus).....	381	tortus (Arctomys).....	720
Thinocyon.....	761	tortus (Eucastor).....	722
Thinohyus.....	657	tortus (Castor).....	722
Thinolestes.....	794	tortus (Oricardinus).....	388
Thinopus.....	552	tortus (Stereodectes).....	720
Thinosaurus.....	476	torvum (Titanotherium).....	637
Thinootherium.....	650, 661	torvus (Menodus).....	637
Thlædon.....	565	torvus (Symborodon).....	637
Thlæodontidae.....	564	Totaniides.....	526
thomasi (Plastomenus).....	453	Toxaspis.....	449
thomasi (Trionyx).....	453	Toxichnus.....	558
Thomomys.....	730	Toxochelydæ.....	442
thodides (Cynodesmus).....	773	Toxochelys.....	412
Thoracodus.....	277	Toxomys.....	724
Thoracosaurus.....	515, 516	Trachemys.....	449
Thoracosuchus.....	515	Trachodon.....	503, 504
Thrinacodus.....	266	Trachodontidae.....	508
Thryptodus.....	393	trachops (Choneziphius).....	597
Thyestes.....	339, 340	Trachosteus.....	348
Thyrasidium.....	416	trachyrhynchus (Pelecanus).....	532
tichoceras (Brontotherium).....	635	trachyspondylus (Zeuglodon).....	587
tichoceras (Menodus).....	635	Tragulidæ.....	681
tichoceras (Titanotherium).....	635	Tragulina.....	681
Ticholeptus.....	669	Traguloidæ.....	681
Tichosteus.....	493	transmontanus (Miolabis).....	676
tiedemani (Squalodon).....	589	transmontanus (Protolabis).....	676
tiedmanni (Squalodon).....	589	transversa (Janassa).....	276
tigrina (Patriofella).....	757	transversalis (Myliobatis).....	320
tigrinus (Protopsalis).....	757	transversus (Hypertragulus).....	675
Tillodonta.....	572	transversus (Lambdodus).....	271
Tillodontia.....	572, 715	transversus (Paradaphenus).....	772
Tillomys.....	724	transversus (Peltodus).....	276
Tillotheriidae.....	716	Tremarctos.....	763
Tillotherium.....	716, 717	Tremataspidae.....	340
Tinoceras.....	702, 708, 704, 706	tremontigerus (Cenobasileus).....	708
Tinoceratidae.....	701	Tretosphys.....	691, 692
Tinoceridae.....	701	Tretullas.....	600
Tinodon.....	567, 568	Triacodon.....	751, 752, 753
Tinodontidae.....	567	Triacranodus.....	265
Tinodontinæ.....	567	Trienaspis.....	397

	Page.		Page.
Trianopus	553	Trimerorhachidae	419
triangularis (Asteroptychius)	330	Trimerorhachis	420
triangularis (Carcharodon)	308	Trinacnomerum	456
triangulata (Theropleura)	438	Trionychia	452
triangulus (Ctenacanthus)	328	Trionychida	453
tribulis (Chitinodus)	298	Trionychidae	458
tricarlinatus (Lysorophus)	433	Trionychides	452
Tricentes	746	Trionychoides	452
Triceratops	498, 499	trionychoides (Anosteira)	453
trichænus (Bothrolabis)	658	trionychoides (Plastomenus)	453
trichænus (Thinochus)	658	Trionyx	452, 453, 454, 455
Trichechidae	583, 783	tripartitus (Edaphodon)	325
Trichechina	783	tripartitus (Ischyodus)	325
Trichechini	784	triplex (Palaeolagus)	786
Trichechus	583, 584, 784	triplex (Xiphopeza)	553
Trichluridae	403	Triploidae	639
Trichlurus	403	Triplopodidae	639
Trichophanes	404	Triplopodinae	639
Tricium	735, 736	Triplopus	640
Triconodon	567	tripos (Hadrosaurus)	504
Triconodonta	566	tripos (Trachodon)	504
Triconodontidae	566	Tripridion	560, 561
Triconodontinae	566	Tripridontidae	558
tricotatus (Hypertragulus)	674	Trispondylus	601, 606
tricuspidatus (Fisodus)	277	Tristychius	536
tricuspis (Didelphis)	571	trisulcatus (Synthetodus)	356
tricuspis (Didelphys)	571	Trogosus	716, 717
tricuspis (Herpetotherium)	571	trogontheri (Elephas)	713
tricuspis (Peratherium)	571	Trogothierium	733
tridactylum (Aceratherium)	643	Trodon	490
tridactylus (Caenopus)	643	tropicum (Mammut)	712
Tridentipes	551, 552	tropicus (Dibelodon)	712
trifidus (Hylopus)	546	tropicus (Mastodon)	712
trifrons (Agriocherus)	664	trouessartianus (Ptilodus)	559
trigonalis (Oracanthus)	335	Trucifelis	780
trigonalis (Pnigacanthus)	335	truquianum (Aceratherium)	644
trigonata (Lamna)	305	truncatus (Chriacus)	745
trigonatus (Otodus)	305	truncatus (Polyrhizodus)	283
Trigonius	642	truquianum (Aceratherium)	644
trigonocephalus (Eporcodon)	667	truquianum (Diceratherium)	644
trigonocephalus (Eucrotaphus)	667	truquianus (Rhinoceros)	644
trigonoceas (Menodus)	637	truxalis (Calamagras)	430
trigonoceas (Symborodon)	636, 637	Trygon	319
trigonoceas (Titanotherium)	637	Trygones	318, 319
trigonodon (Oxyrhina)	306	Trygonidae	318
trigonodon (Aceratherium)	643	Trygoninae	319
trigonodon (Leptacatherium)	643	tuberatum (Brontozoum)	544
trigonodus (Rhinoceros)	643	tuberatus (Eubrontes)	544
Trigonodus	288, 289, 292	tuberculata (Eurylepis)	368
Trigonolestes	648, 649	tuberculata (Haplolepis)	366
Trigonolestoides	648	tuberculata (Mecolepis)	368
Trihamus	553	tuberculatus (Bottosaurus)	514
trihedron (Dryptosaurus)	488	tuberculatus (Dinichthys)	347
trihedron (Laelaps)	488	tuberculatus (Holoptychius)	359
trihedrus (Claorhynchus)	500	tuberculatus (Orodus)	296
Trilodon	747, 748	tuberculatus (Ponerichthys)	317
Trilodontidae	747	tuberculatus (Pontobasilus)	568
trilateralis (Cosoryx)	683	tuberosa (Protostega)	440
trilateralis (Dicrocerus)	683	tuberosus (Atlantochelys)	440
trilateralis (Merycodus)	683	tuberosus (Eubrontes)	544
trilobatus (Phenacodus)	604	tuberosus (Neptunochelys)	440
trilobus (Deltodus)	293	tuberosus (Ornithichnites)	545, 544
Trilophodon	707, 708, 710	tuberosus (Ornithoidichnites)	544
trilophus (Adjidaumo)	720	tuberosus (Platecarpus)	440
trilophus (Gymnoptychus)	720	tubifer (Aceratherium)	640
Trimerodus	671	tubifer (Anchisodon)	640

	Page.		Page.
Tubinares	523, 526	uintensis (Achænodon)	654
Tuditaniidæ	415	uintensis (Ephippus)	612
Tuditanus	415	uintensis (Miæcis)	760
tumidus (Cladodus)	970	uintensis (Mesonyx)	750
tumidus (Desmiodus)	297	uintensis (Microsypops)	791
tumidus (Psammodus)	285	uintensis (Orohippus)	612
tumidus (Stagodon)	565	uintensis (Paramys)	724
tumidus (Stethacanthus)	333	uintensis (Prodaphænus)	760
tumula (Oxyrhina)	307	uintensis (Sphenocœlus)	691
tumulus (Isurus)	307	U'intornis	536
turgida (Emys)	445	U'ias	599
turgida (Testudo)	452	ulta (Patriofella)	757, 758
turgidunculus (Miocœnus)	606	ultimum (Anchitherium)	614
turgidunculus (Protogonodon)	606	ultimus (Meshippus)	614
turgidus (Agomphus)	445	ultimus (Miohippus)	614
turgidus (Amphimys)	445	ultimus (Palæosypops)	631
turgidus (Carchæodon)	307	umbonatus (Otolithus)	409
turgidus (Miocœnus)	606	umbrosus (Cathartes)	535
turgidus (Orodus)	296	umbrosus (Ornithochirus)	508
turgidus (Palæolagus)	736	umbrosus (Palæoborus)	535
turgidus (Psammodus)	285	umbrosus (Pteranodon)	508
turneri (Leuciscus)	396	umbrosus (Pterodactylus)	508
turritus (Cladodus)	269, 270	umbrosus (Vultur)	535
Turseodus	369	Uncia	778, 782, 783
tursio (Physeter)	595	uncinatus (Cottus)	407
tutum (Tomitherium)	790	uncus (Gryphodactylus)	316
tutus (Pelycodus)	790	uncus (Tridentipes)	552
Tylopoda	662	undans (Paramys)	724
Tylosauridæ	471	undans (Plesiarctomys)	724
Tylosaurinæ	471	undans (Sciuravus)	724
Tylosaurus	471	undans (Tanyops)	628
Tylosteus	477	undata (Baëna)	438
tympaniticus (Platecarpus)	440, 469	undata (Testudo)	451, 452
Tympanuchus	534	undatum (Chisternon)	438
Typodus	372	undulatus (Deliodus)	293
Typopus	553	undulatus (Helodus)	287
Typosuchia	611	unguiculus (Leacacanthus)	336
Typothorax	511	unguifer (Palæosauropus)	548
typus (Bathrodon)	793	unguifer (Sauropus)	548
typus (Gampacanthus)	336	unguliformis (Janassa)	276
typus (Glyptodon)	581	unguliformis (Peliodus)	276
typus (Ischyromys)	725	Ungulata	601
tyrannus (Delphinapterus)	599	ungulatus (Hypsirophus)	496
tyrannus (Limnotherium)	789	ungulatus (Stegosaurus)	496
tyrannus (Notharctus)	789	uniformis (Theropleura)	433
tyrannus (Tomitherium)	789	unios (Ceratoptera)	322
tysonii (Zarachi)	592	unios (Manta)	322
U.			
uddeni (Dipterus)	352	unipedale (Diacium)	477
uddeni (Gampacanthus)	332	unipedalis (Crematosaurus)	477
uddeni (Heteracanthus)	332	unipedalis (Platyrhachis)	477
uinehellianus (Ptyonius)	415	uraus (Priscodelphinus)	592
Uintacyon	759	uraus (Tretosphys)	592
Uintacyonidæ	759	Uranoplosus	373
uintaensis (Amia)	381	Uria	524
uintaensis (Protamia)	381	Urocordylidæ	414
uintaensis (Trionyx)	454	Urocordylus	414
Uintamastix	701, 702	Urocyon	775
uintanum (Orotherium)	612	Urodela	424
uintanus (Orohippus)	612	Uronautes	457
uintanus (Pachynolophus)	612	Ursidæ	762
Uintatheridæ	701	ursidens (Anacodon)	747
Uintatherium	700, 701, 702, 703, 704, 705, 706	Ursini	762
uintense (Elotherium)	654	ursinus (Ælurodon)	774
uintense (Protelotherium)	654	ursinus (Amphicyon)	774
		ursinus (Canis)	774
		Ursus	763

V.

	Page.		Page.
vabasensis (Ctenodus)	355	variabilis (Lophodus)	296
vabasensis (Sagenodus)	355	variabilis (Orodus)	296, 327
vaccinsulensis (Champsosaurus)	461	variabilis (Venustodus)	287
vachsmuthi (Cladodus)	270	varians (Menodus)	637
vafer (Canis)	776	varians (Menops)	637
vafer (Vulpes)	776	varians (Titanotherium)	637
vagens (Homacodon)	650	varica (Platypterna)	549
vagens (Loxolophodon)	705	varicostatus (Orodus)	295, 296
vagens (Macelognathus)	505	variolosus (Basillemys)	445
vagens (Oreosaurus)	475	variolosus (Compsomys)	445
vagens (Palaeotringa)	527	varius (Ctenacanthus)	328
vagens (Pantolestes)	650	varius (Pelecopsis)	399
vagens (Parahyus)	654	varsoviensis (Chomatodus)	290
vagens (Tinoceras)	705	varsoviensis (Deltopychius)	294
vagens (Trionyx)	454	varsoviensis (Pœclodus)	294
vagens (Urtatherium)	705	va-acclense (Hyracotherium)	610, 610
vagens (Xestops)	475	vasacclense (Orotherium)	610, 610
vagrans (Cyclotomodon)	390	vasacclensis (Eohippus)	610
vagrans (Sus)	661	vasacclensis (Notharctus)	610
vagus (Limnopus)	547	vasacclensis (Orohippus)	610
vagus (Palaeacodon)	794	vasachlensis (Notharctus)	610
vagus (Parahyus)	654	Vaticinodus	290
valens (Anthracotherium)	652	veatleianus (Clepsysaurus)	492
valens (Antrodemus)	490	vebbianus (Goniopholis)	516
valens (Megalosaurus)	490	vebbianus (Hyposaurus)	516
valens (Oreacodon)	652	vebbii (Diplosaurus)	516
valens (Purodon)	569	vebbii (Goniopholis)	516
valens (Pœclioleuron)	490	vebbii (Hyposaurus)	516
valens (Pœclioleuron)	490	veelerii (Crocodilus)	513
valens (Rhachitonus)	422	vellicatus (Archæobelus)	453
validum (Brontozoum)	544	velox (Clidastes)	467, 468
validum (Hyracotherium)	610	velox (Edestosaurus)	468
validum (Telmatotherium)	632	velox (Graculavus)	533
validum (Telmatotherium)	632	velox (Nycittherium)	742
vallum (Thinothorium)	650	velox (Ornithomimus)	494
validus (Belodon)	510	velox (Pachyrhizodus)	388
validus (Brontops)	634	velox (Pteranodon)	508
validus (Clidastes)	467	velox (Pterodactylus)	508
validus (Eohippus)	610	velox (Thinocyon)	761
validus (Helohyus)	650	velox (Zarhachis)	592
validus (Ichthyornis)	520	ventanus (Coryphodon)	700
validus (Liodon)	467, 473	ventricolum (Hyracotherium)	609, 610
validus (Lophiodon)	623	ventriculus (Protorohippus)	610
validus (Macrosaurus)	467	ventorum (Heptodon)	625
validus (Megalonyx)	578	ventorum (Lophiodon)	625
validus (Nectoporthicus)	467, 473	ventorum (Pachynolophus)	625
validus (Phenacodus)	650	ventricosus (Trionyx)	456
validus (Phytosaurus)	510	Venustodus	287
validus (Protapirus)	628	venustum (Hipparion)	621
validus (Stagodon)	565	venustum (Hippotherium)	621
validus (Stylacodon)	569	venustus (Aletornis)	528
validus (Tapiravus)	628	venustus (Antiacodon)	737
validens (Mantoceras)	632	venustus (Chomatodus)	237
validens (Palaeosyops)	632	venustus (Delphinodon)	591
validens (Telmatotherium)	632	venustus (Erethizon)	738
validens (Telmatotherium)	632	venustus (Hystriopsis)	733
validens (Telmatotherium)	632	venustus (Hystrix)	733
vanhornei (Cladodus)	270	venustus (Laodon)	570
vanhornei (Bythiacanthus)	331	venustus (Phocageneus)	591
vanhornii (Cochliodus)	294	venustus (Sarcoclemur)	737
vanhornii (Copodus)	285	venustus (Venustodus)	287
Varani	476	vera (Sinopa)	752
Varanidae	476	Vermilingua	575
variable (Mylostoma)	350	vermontana (Beluga)	594
variabilis (Agassizodus)	296	vermontana (Delphinapterus)	594
variabilis (Campodus)	296	vermontanus (Delphinus)	594

	Page.		Page.
verrucosa (Glyptaspis)	349	vintanum (Orotherium)	609
verticalis (Carcharias)	302	vintanus (Pliolophus)	609, 612
verticalis (Lamna)	302	virginiana (Dama)	684
verticalis (Odontaspis)	302	virginiana (Didelphis)	571
verus (Carcharias)	308	virginiana (Didelphys)	571
verus (Limnocyon)	752	virginianus (Agassizodus)	297
verus (Palæacodon)	794	virginianus (Bubo)	536
verus (Platyxystrodus)	290	virginianus (Campodus)	297
verus (Stypolophus)	752	virginianus (Canis)	775
verus (Xystrodus)	290	virginianus (Cariacus)	684
Vesperinus	726	virginianus (Cervus)	684
Vesperomys	726, 727	virginianus (Odobenus)	784
Vespertilio	742	virginianus (Orodus)	297
Vespertilionidæ	742	virginianus (Trichechus)	784
Vesperugo	742	virginianus (Trionyx)	455
Vesperus	742	virginiensis (Procamelus)	678
veterrima (Palæosinopa)	754	virginiensis (Protocamelus)	678
vetulus (Anchippodus)	717	virgulatus (Triaspis)	397
vetulus (Trogosus)	717	viridensis (Asineops)	404
vetus (Amphicyon)	772	vison (Putorius)	768
vetus (Arctomys)	720	vitakeriana (Auchenia)	679
vetus (Catodon)	595	vitakerianus (Camelops)	679
vetus (Daphænus)	772	vitakerianus (Holomeniscus)	679
vetus (Daphænus)	772	Viverravidæ	754
vetus (Diodon)	408	Viverravus	754, 755, 761
vetus (Hellscomys)	729	viverrina (Sinopa)	753
vetus (Limnocyon)	752	viverrinus (Prototomus)	753
vetus (Lobodon)	785	viverrinus (Stypolophus)	753
vetus (Miacle)	752	vorax (Didelphodon)	566
vetus (Ogmorhinus)	785	vorax (Didelphope)	566
vetus (Palæotringa)	527	vorax (Dromocyon)	751
vetus (Physeter)	595	vorax (Dryolestes)	570
vetus (Platygonus)	661	vorax (Edestus)	337
vetus (Polygonodon)	473	vorax (Mesonyx)	751
vetus (Stenorhynchus)	785	vorax (Miacle)	760
vetustus (Apatacanthus)	331	vorax (Uintacyon)	760
vetustus (Asteroptychius)	330	vortmani (Hyracotherium)	604
vetustus (Cimoliasaurus)	459	vortmani (Phenacodus)	603, 605
vetustus (Ctenacanthus)	328	vortmani (Selurus)	719
vetustus (Discosaurus)	469	vulcanorum (Platichenia)	630
vetustus (Oracanthus)	335	vulgaris (Macropterna)	543
vetustus (Pristacanthus)	331	Vulpavus	761
vetustus (Sandalodus)	290	Vulpes	775
vetustus (Tamiobatis)	315	vulpiceps (Procyonictis)	760
vetustus (Vaticinodus)	290	vulpinus (Amphicyon)	760
viemalæ (Dystrophæus)	497	vulpinus (Harpalodon)	761
vicarius (Hyopsodus)	790, 791	vulpinus (Miacle)	760
vicarius (Microsops)	791	vulpinus (Uintacyon)	760
vicomicanus (Myliobatis)	820	vultuosus (Hemiganus)	574
victor (Dierocynodon)	568	Vultur	535
victor (Diplocynodon)	568	vymanii (Clidastes)	468
victor (Hallopus)	494	vyomingensis (Adocus)	445
victor (Ichthyornis)	520	vyomingensis (Baptmys)	445
victor (Nanosaurus)	494	vyomingensis (Dermatemys)	445
victus (Compsemys)	437	vyomingensis (Emys)	448
villosus (Mallotus)	392		
vilsoni (Pocbrotherium)	676		
vinchellianus (Ptyonius)	415		
vinearius (Graphiodon)	590		
vinearius (Squalodon)	590		
vinosus (Ctenopetalus)	281		
vinosus (Ctenopterychius)	281		
vinslovi (Ceratodus)	355		
vinslovi (Clepsydropus)	432		
vinslovi (Ptyonodus)	355		
vinslovi (Sagenodus)	355		

W.

wachsmuthi (Cladodus)	270
wachsmuthi (Deltopterychius)	294
wagneri (Ctenodus)	353
wallovianus (Temnocyon)	773
warreni (Cervus)	683
warreni (Periplectrodus)	287
Washakius	787, 792
westii (Clidastes)	468

PUBLICATIONS OF UNITED STATES GEOLOGICAL SURVEY.

[Bulletin No. 179.]

The publications of the United States Geological Survey consist of (1) Annual Reports, (2) Monographs, (3) Professional Papers, (4) Bulletins, (5) Mineral Resources, (6) Water-supply and Irrigation Papers, (7) Topographic Atlas of United States—folios and separate sheets thereof, (8) Geologic Atlas of United States—folios thereof. The classes numbered 2, 7, and 8 are sold at cost of publication; the others are distributed free. A circular giving complete lists may be had on application.

The Bulletins (formerly sold, but now distributed gratuitously by authority of a joint resolution of Congress approved May 16, 1902) treat of a variety of subjects, and the total number issued is large. They have therefore been classified into the following series: A, Economic geology; B, Descriptive geology; C, Systematic geology and paleontology; D, Petrography and mineralogy; E, Chemistry and physics; F, Geography; G, Miscellaneous. This bulletin is the fifty-fifth in Series C, the complete list of which follows:

BULLETINS, SERIES C, SYSTEMATIC GEOLOGY AND PALEONTOLOGY.

3. Fossil faunas of Upper Devonian, along the meridian 76° 30', from Tompkins County, New York, to Bradford County, Pennsylvania, by Henry S. Williams. 1884. 36 pp.
4. Mesozoic fossils, by Charles A. White. 1884. 36 pp., 9 pls.
10. Cambrian faunas of North America. Preliminary studies, by C. D. Walcott. 1884. 74 pp., 10 pls.
11. Quaternary and recent mollusca of the Great Basin, with descriptions of new forms, by R. Ellsworth Call. Introduced by a sketch of the Quaternary lakes of the Great Basin, by G. K. Gilbert. 1884. 66 pp., 6 pls.
15. Mesozoic and Cenozoic paleontology of California, by C. A. White. 1885. 3 pp.
16. Higher Devonian faunas of Ontario County, New York, by John M. Clarke. 1885. 86 pp., 3 pls.
18. Marine Eocene, fresh-water Miocene, and other fossil mollusca of western North America, by Charles A. White. 1885. 26 pp., 3 pls.
19. Notes on the stratigraphy of California, by G. F. Becker. 1885. 28 pp. (Exhausted.)
22. New Cretaceous fossils from California, by C. A. White. 1885. 25 pp., 5 pls.
24. List of marine mollusca, comprising the Quaternary fossils and Recent forms from American localities between Cape Hatteras and Cape Roque, including the Bermudas, by William Healy Dall. 1885. 336 pp.
29. Fresh-water Invertebrates of the North American Jurassic, by C. A. White. 41 pp., 4 pls.
30. Second contribution to the studies on the Cambrian faunas of North America, by C. D. Walcott. 1886. 369 pp., 33 pls.
31. Systematic review of our present knowledge of fossil insects, including myriapods and arachnids, by S. H. Scudder. 1886. 128 pp.
34. Relation of the Laramie molluscan fauna to that of the succeeding fresh-water Eocene and other groups, by C. A. White. 1886. 54 pp., 5 pls.
37. Types of the Laramie flora, by L. F. Ward. 1887. 354 pp., 57 pls.
41. Fossil faunas of the Upper Devonian—the Genesee section, New York, by Henry S. Williams. 1887. 121 pp., 4 pls.
43. Tertiary and Cretaceous strata of the Tuscaloosa, Tombigbee, and Alabama rivers, by E. A. Smith and L. C. Johnson. 1887. 189 pp., 21 pls.
51. Invertebrate fossils from the Pacific Coast, by C. A. White. 1889. 102 pp., 14 pls.
56. Fossil wood and lignite of the Potomac formation, by F. H. Knowlton. 1889. 72 pp., 7 pls.
63. Bibliography of Paleozoic Crustacea from 1698 to 1889, including a list of North American species and a systematic arrangement of genera, by A. W. Vogdes. 1890. 177 pp.
69. Classed and annotated bibliography of fossil insects, by S. H. Scudder. 1890. 101 pp.

71. Index to known fossil insects of the world, including myriapods and arachnids, by S. H. Scudder. 1891. 744 pp.
77. The Texan Permian and its Mesozoic types of fossils, by C. A. White. 1891. 51 pp., 4 pls.
80. Correlation papers—Devonian and Carboniferous, by H. S. Williams. 1891. 279 pp.
81. Correlation papers—Cambrian, by C. D. Walcott. 1891. 447 pp., 3 pls. (Exhausted.)
82. Correlation papers—Cretaceous, by C. A. White. 1891. 273 pp., 3 pls.
83. Correlation papers—Eocene, by W. B. Clark. 1891. 173 pp., 2 pls.
84. Correlation papers—Neocene, by W. H. Dall and G. D. Harris. 1892. 349 pp., 3 pls.
85. Correlation papers—The Newark system, by I. C. Russell. 1892. 344 pp., 13 pls.
86. Correlation papers—Archean and Algonkian, by C. R. Van Hise. 1892. 549 pp., 12 pls.
87. Synopsis of American fossil Brachiopoda, including bibliography and synonymy, by Charles Schuchert. 1897. 464 pp.
88. Cretaceous foraminifera of New Jersey, by R. M. Bagg, jr. 1896. 89 pp., 6 pls.
93. Some insects of special interest from Florissant, Colo., and other points in the Tertiaries of Colorado and Utah, by S. H. Scudder. 1892. 35 pp., 3 pls.
97. Mesozoic Echinodermata of the United States, by W. B. Clark. 1893. 207 pp., 50 pls.
98. Flora of the outlying Carboniferous basins of southwestern Missouri, by David White. 1893. 139 pp., 5 pls.
101. Insect fauna of the Rhode Island coal field, by S. H. Scudder. 1893. 27 pp., 2 pls.
102. Catalogue and bibliography of North American Mesozoic invertebrata, by C. B. Boyle. 1893. 315 pp.
105. The Laramie and the overlying Livingston formation in Montana, by W. H. Weed, with report on Flora, by F. H. Knowlton. 1893. 68 pp., 6 pls.
106. Colorado formation and its invertebrate fauna, by T. W. Stanton. 1893. 288 pp., 45 pls.
110. Paleozoic section in the vicinity of Three Forks, Mont., by A. C. Peale. 1893. 56 pp., 6 pls.
120. Devonian system of eastern Pennsylvania and New York, by C. S. Prosser. 1895. 81 pp., 2 pls.
121. Bibliography of North American paleontology, by C. R. Keyes. 1894. 251 pp.
124. Revision of North American fossil cockroaches, by S. H. Scudder. 1895. 176 pp., 12 pls.
128. Bear River formation and its characteristic fauna, by C. A. White. 1895. 108 pp., 11 pls.
133. Contributions to the Cretaceous paleontology of the Pacific coast: The fauna of the Knoxville beds, by T. W. Stanton. 1895. 132 pp., 20 pls.
134. Cambrian rocks of Pennsylvania, by C. D. Walcott. 1896. 43 pp., 15 pls.
141. Eocene deposits of the Middle Atlantic slope in Delaware, Maryland, and Virginia, by W. B. Clark. 1896. 167 pp., 40 pls.
142. Brief contribution to the geology and paleontology of northwestern Louisiana, by T. W. Vaughan. 1896. 65 pp., 4 pls.
145. Potomac formation in Virginia, by W. M. Fontaine. 1896. 149 pp., 2 pls.
151. Lower Cretaceous gryphaeas of the Texas region, by R. T. Hill and T. W. Vaughan. 1896. 139 pp., 35 pls.
152. Catalogue of Cretaceous and Tertiary plants of North America, by F. H. Knowlton. 1896. 247 pp.
153. Bibliographic index of North American Carboniferous invertebrates, by Stuart Weller. 1896. 653 pp.
163. Flora of the Montana formation, by F. H. Knowlton. 1900. 118 pp., 19 pls.
173. Synopsis of American fossil Bryozoa, including bibliography and synonymy, by J. M. Nickles and R. S. Bassler. 1900. 663 pp.
179. Bibliography and catalogue of fossil vertebrata of North America, by O. P. Hay. 1902. 868 pp.

LIBRARY CATALOGUE SLIPS.

[Take this leaf out and paste the separated titles upon three of your catalogue cards. The first and second titles need no addition; over the third write that subject under which you would place the book in your library.]

United States. *Department of the interior.* (*U. S. geological survey.*)

Department of the interior | — | Bulletin | of the | United States | geological survey | no. 179 | [Seal of the department] |

Washington | government printing office | 1902

Second title: United States geological survey | Charles D. Walcott, director | — | Bibliography and catalogue | of the | fossil vertebrata of North America | by | Oliver Perry Hay | [Vignette] | Washington | government printing office | 1902

8°. 868 pp.

Hay (Oliver Perry).

United States geological survey | Charles D. Walcott, director | — | Bibliography and catalogue | of the | fossil vertebrata of North America | by | Oliver Perry Hay | [Vignette] |

Washington | government printing office | 1902

8°. 868 pp.

[UNITED STATES. *Department of the interior.* (*U. S. geological survey.*) Bulletin 179.]

United States geological survey | Charles D. Walcott, director | — | Bibliography and catalogue | of the | fossil vertebrata of North America | by | Oliver Perry Hay | [Vignette] |

Washington | government printing office | 1902

8°. 868 pp.

[UNITED STATES. *Department of the interior.* (*U. S. geological survey.*) Bulletin 179.]

3



